## Our Product Ranges

### Dampers
1. Fire Dampers
2. Fire / Smoke Dampers
3. Volume Control Dampers
4. Motorized Control Dampers
5. Pressure Relief Dampers / Non Return Dampers

### Variable Air Volumes
6. Pressure Independent VAV
7. Constant Air Volume VAV
8. By Pass VAV

### Louvers
9. Sand Trap Louvers
10. Acoustic Louvers
11. Stationary Louvers / Architectural Louvers
12. Storm Louvers
13. Weather Louvers

### Sound Attenuators
14. Rectangular Sound Attenuators
15. Circular Sound Attenuators
16. Crosstalk Attenuators

### Electric Duct Heaters
17. Flange & Slip 'n' Type
18. Modulating & On/Off Type

### Air Outlets
19. Registers & Grilles
20. Diffusers (Linear Diffusers, Sq. & Rect. Ceiling Diffusers, Round Diffusers, Jetflow Diffusers
21. Swirl Diffusers & Disc Valves
22. Drum Louvers
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Introduction

Airwellcare Motorized Volume Damper can be used to regulate the airflow, depending on the zone / area requirement, thus conserving the energy and substantial benefits and savings to the user as well facilitate to regulate overall comfort of the environment.

Airwellcare have comprehensive range and models of Motorized Low Leakage Control dampers with maximum rigidity, cost-effective quality in Standard, to suit various HVAC Light, Medium and Heavy duty applications.

Selection & Design

Airwellcare Motorized Volume Dampers are designed and manufactured in compliance with international standards, to achieve the optimum results, to cater to the requirements of HVAC Industry.

Key features

Available in Aluminium, Galvanized Steel, Stainless Steel or in any Combinations

- Concealed Linkages out of air stream.
- Compatible to any wall mounting and duct mounting applications.
- Easier and faster installation.
- QUALITY in Standard, Low Leakage based construction suits to project requirement and application.
- Fully Non Corrosive optional construction.
- Design Flexibility.
- Swift delivery upon 100% production confirmation.
- Technical & after sales support.
- All sizes are custom fabricated to meet project requirements.
- Any custom based colour finishes to suits to project and or clients requirement.
Airwellcare Low Leakage Motorized Volume Damper have excellent leakage rated performance.

Its robust galvanized steel, Aluminium & Stainless Steel construction features with remarkable design makes perfect performance in medium and high Velocity and pressure applications.

Construction Details

Casing

Casing is made of 18 Gauge (1.2mm) galvanized steel, stainless steel (304 / 316) Or Aluminium.

Damper Blades

Aluminium Aerodynamic Double Skin Blade
Blade Width : 100, 150, 200 & 250mm
Blade Thickness : 20 Gauge
Refer to page No. 6 for optional blades

Damper Operation

Blades are operated either PARALLEL Or OPPOSED directions.

Blade Axle

The Blade Axle is made of 12x12mm Square Galvanized Steel. Stainless Steel Blade Axle is optional.

Blade Stopper

18 Gauge Galvanized Steel Angle.

Gaskets

Neoprene gaskets are fixed on both sides of damper blade edges to prevent leakages.

Bearings

Fire Resistant Brass Bearings are appropriately positioned on the damper frame through the damper axle / spindle.

Side Seals (Jamb Seals)

0.3mm Thick. stainless steel of Grade 304 is placed both the blade edges, to prevent the leakage of air between damper blades and side frame.

Linkages

Mechanical Linkages are made of 2.8mm Thick. galvanized steel rigidly fastened with damper blades concealed in frame, out of air stream.

Stainless Steel (304 Gr.) is optional.

Frames

Standard frame width is 130mm. Frames over & above 130mm are optional.
Airwellcare Low Leakage Motorized Control Dampers can be used where the maximum system pressure is up to 1500 Pa and duct velocities to 15m/s.

<table>
<thead>
<tr>
<th>Minimum Single Module Size (Width x Height)</th>
<th>Maximum Single Module Size (Width x Height)</th>
<th>Maximum Multiple Module Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>250 x 250mm</td>
<td>1250 x 1250mm</td>
<td>Customers Option</td>
</tr>
</tbody>
</table>

Motorized Control Dampers larger than the maximum single module sizes are fabricated in multiple section assemblies. These assemblies consists of sections of equal size, which are coupled together with the help of full length Axle / Shaft.
PARALLEL & OPPOSED DAMPER BLADES OPERATION

Airwellcare Motorized Volume Dampers are designed with two types of Blade movements, based on the operation requirement.

PARALLEL BLADES

Parallel Blades requires the damper blades to rotate in the same direction, parallel to one another. Parallel blades more suitable to low-pressure zone control systems. Parallel blades rapidly increases the flow when damper begins to open.

OPPOSED BLADES

In this blade movements, adjacent damper blades rotate opposite one another. Opposed blade configuration is typically used on dampers that modulate airflow. Opposed blades gives slow increase in the flow when damper begins to open.
General Compliance

- The standard galvanized steel flanged type damper casing complies with HVAC Ductwork Specification DW144.

- The material, Galvanized Steel coating conforms to Z-22 to Z-27.

- Stainless steel peripheral gasketting (Side Seals) included, which allows for expansion under high temp. conditions.

- All Types of Airwellcare Motorized Volume Damper can be used where the maximum system pressure is up to 1500 Pa and duct velocities to 15m/s.

- Motorized Volume Damper are suitable for both vertical and horizontal applications with airflow in either direction.

- Corrosion comply to BS EN 60068-2-52.

- Conformed to International standards of NFPA 90A & UL 181 for erosion.

- Stainless Steel Axles, bearings and accessories for a long lasting operation suitable for use in applications with temperatures ranging from –50° F (-45° C) to 250°F (121°C) depending on blade configuration & leakage requirements.

OPTIONAL ACCESSORIES & FITTINGS

Many optional accessories to the basic design are available at an additional cost. They include:

- All Fasteners with Stainless Steel Grade 304 or Grade 316L.
- Bird Screen / Insect Screen in Galvanized Steel / Stainless Steel / Aluminium in various sizes.
- Flanged frames of various sizes.
- Continuous perimeter / Support angles.
- Visible mullions for multiple section requirements.
- Anodized, Baked Enamel or Kynar finish.
Motorized Volume Damper

Model Selection & Ordering System

(1) MODEL SELECTION
Select the below model
AMCL 100

(2) MATERIAL SELECTION
Select the Casing material

<table>
<thead>
<tr>
<th>G</th>
<th>L</th>
<th>S</th>
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</thead>
<tbody>
<tr>
<td>Galvanized Steel</td>
<td>Aluminium</td>
<td>Stainless Steel</td>
</tr>
</tbody>
</table>

(3) BLADE WIDTH
Select the Blade Width

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>100mm</td>
<td>150mm</td>
<td>200mm</td>
<td>250mm</td>
</tr>
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</table>

(4) DAMPER MOVEMENT
Select the Damper movement

<table>
<thead>
<tr>
<th>A</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel Blade</td>
<td>Opposed Blade</td>
</tr>
</tbody>
</table>

(5) ELECTRICAL ACTUATOR DAMPER OPERATION

<table>
<thead>
<tr>
<th>F</th>
<th>FO</th>
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<tbody>
<tr>
<td>Fail Close</td>
<td>Fail Open</td>
</tr>
</tbody>
</table>

(When power energize, Louver blades will open)  
(When power energize, Louver blades will Close)

(6) MOUNTING OPTIONS
Select the Damper mounting options

<table>
<thead>
<tr>
<th>W</th>
<th>D</th>
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</thead>
<tbody>
<tr>
<td>Wall Mounted</td>
<td>Duct Mounted</td>
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</tbody>
</table>

Example: Model selected AMCL 100-G2-AFD
Motorized Control Louver, Galvanized Steel Casing, Blade width 150mm, Parallel Operation, Fail Close, Duct Mounted.

Special Notes
1) Electrical Power Supply for Actuator i.e. 230 VAC or 24 VAC shall be identified prior to ordering.
2) Modulating Damper operation shall be indicated prior to ordering.
3) Wall mounted Dampers will have one side flange. Front & rear sides will have flanges for duct mounted application.
4) Damper frame depth will change according to the selection of damper blade width.
5) Request for a detailed drawing if required, for further approval, prior to ordering.
Material Storage

The Motorized Volume Damper required to be handled carefully during offloading as per the upright arrow marks given on the unit in the right position. Care should be taken in lifting the product in all 4 corners and placing them on a raised floor level. Store the product always in dry environment. After receiving the product, check for both obvious and hidden damages. If damage is found due to manufacturing defect / workmanship, record all necessary information with photographs and forward to Airwellcare.

Maintenance

Airwellcare Motorized Volume Dampers are designed for least maintenance. However, it is recommended to have periodical inspection of damper blades for damage, wear and tear etc.

Once installed it is important to ensure the dampers are not damaged as this may affect both their movement of Actuator and airflow performance.

The Motorized Volume Damper may, over time begin to collect dust and grime due to their location and exposure to varying weather conditions. The Motorized Volume Damper should be cleaned to refresh their visual appearance at six monthly intervals.

Cleaning of the Motorized Volume Damper should be completed using a soft, clean cloth and soft wash gel cleaner. Surfaces should be thoroughly rinsed with fresh water after cleaning.

The damper may, over time begin to collect dust and grime due to their location and exposure to varying weather conditions. The louvers should be cleaned to refresh their visual appearance at six monthly intervals.

DO NOT use harsh cleaning fluids, strong solvents or abrasive cleaning materials, as these will damage the surface finish on the Louver. Once the louver surface finish is damaged, it cannot be repaired and in many cases may lead to deterioration of the base metal.
Our OEM Partners

Motorized Volume Damper

BELIMO

Honeywell

SCHISCHEK

a perfect partner in performance...