a perfect partner in performance...

Airwellcare

Management System ISO 9001:2008

TÜVRheinland CERTIFIED

www.tuv.com ID 9105080818

MOTORIZED VOLUME DAMPER

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 Stationery 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

Model : AMCL 100

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.

Electrical Actuator

Motorized Volume Dampers are supplied with suitable Electrical Actuators of 24 VAC to 230 VAC or 24 VDC. Types & Models of electrical actuators are damper size dependent. Refer to Page No. 11 for our OEM Partner of Actuators.

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

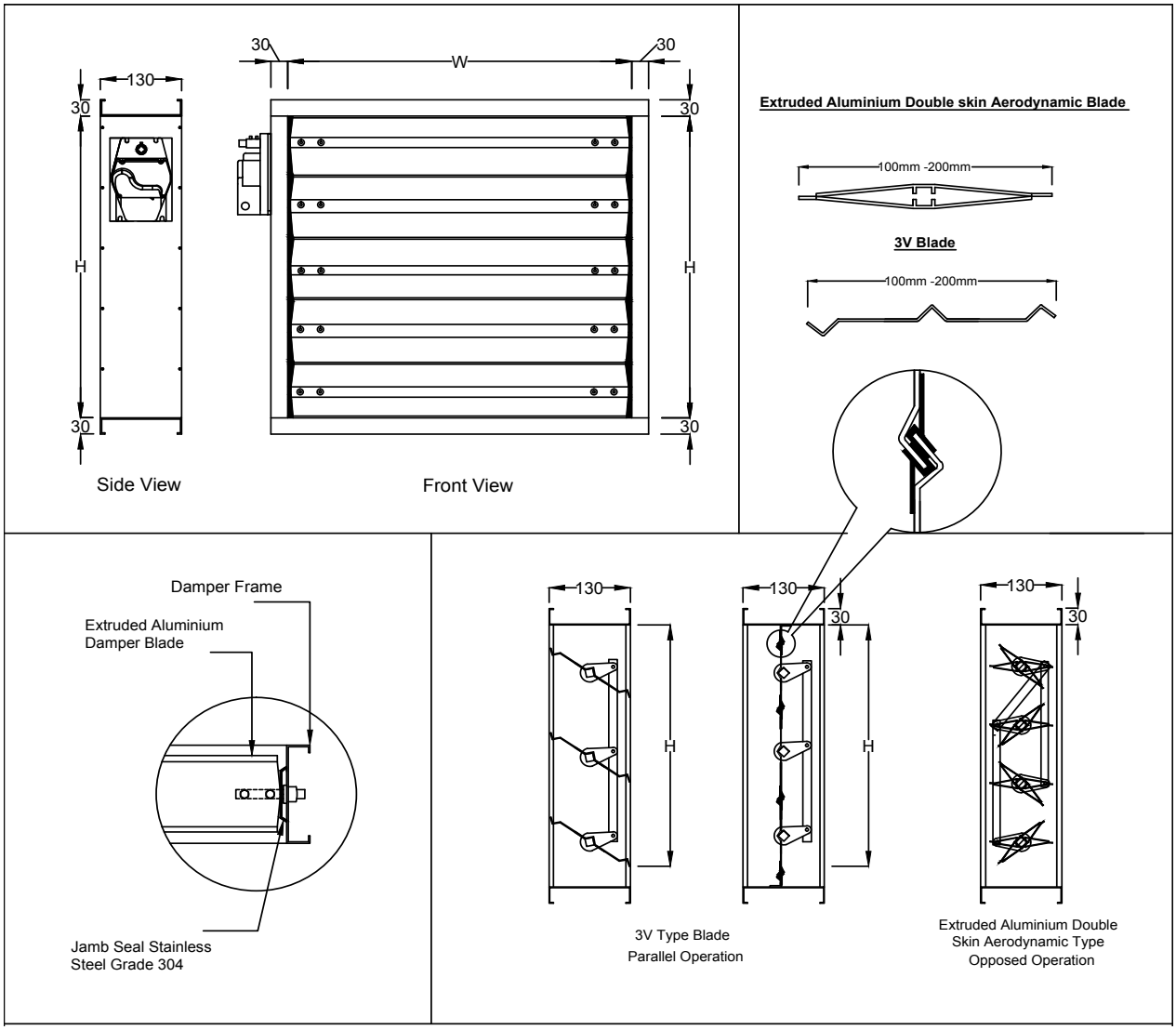
Mechanical Linkages are made of 2.8mm Thick. galvanized steel rigidly fastened with damper blades concealed in frame, out of air stream.

Stainless Steel (304 Gr.) is optional.

Frames

Standard frame width is 130mm. Frames over & above 130mm are optional.

Construction & Dimensional Data



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.

Minimum Single Module Size (Width x Height)	Maximum Single Module Size (Width x Height)	Maximum Multiple Module Size
250 x 250mm	1250 x 1250mm	Customers Option

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.

Engineering Guidelines

PARALLEL & OPPOSED DAMPER BLADES OPERATION

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

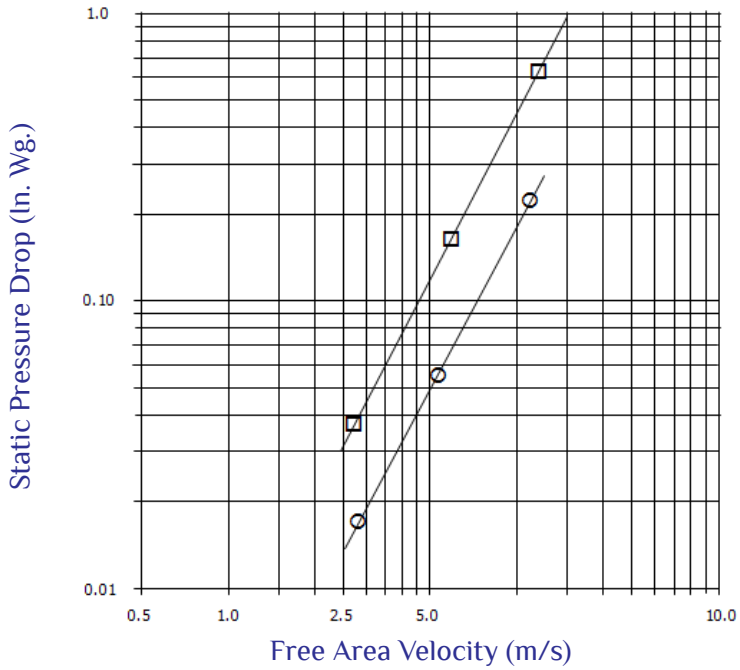
PARALLEL BLADES

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.

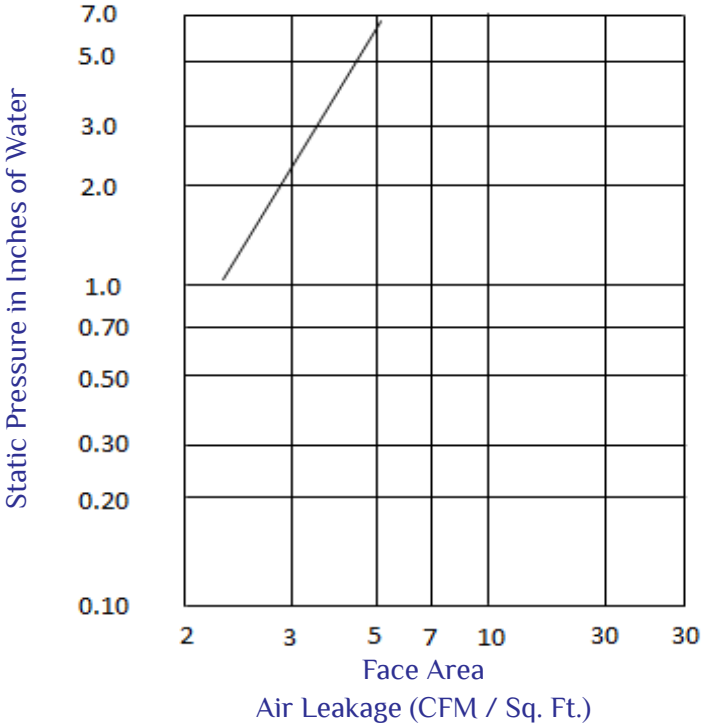
Pressure Drop & Free area Velocity



❍ 36" x 36"
❑ 24" x 24"

Air Leakage

Damper in 100% Closed Position
Size (1220 x 1220mm)



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.

Model Selection & Ordering System

(1) MODEL SELECTION
Select the below model AMCL 100

(2) MATERIAL SELECTION		
Select the Casing material		
G Galvanized Steel	L Aluminium	S Stainless Steel

(3) BLADE WIDTH			
Select the Blade Width			
1	2	3	4
100mm	150mm	200mm	250mm

(4) DAMPER MOVEMENT	
Select the Damper movement	
A – Parallel Blade	X – Opposed Blade

(5) ELECTRICAL ACTUATOR DAMPER OPERATION	
F – Fail Close (When power energize, Louver blades will open)	FO – Fail Open (When power energize, Louver blades will Close)

(6) MOUNTING OPTIONS	
Select the Damper mounting options	
W - Wall Mounted	D – Duct Mounted

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, Operation and Maintenance

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

BELIMO

Honeywell

SCHISCHEK
EXPLOSIONPROOF

a perfect partner in performance...

Airwellcare

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ISO 9001:2008

www.tuv.com
ID 9105080818

P.O Box 42707
Factory at LV-16 A, Logistic Village, Phase 2, Hamriyah Free Zone
Sharjah, United Arab Emirates
Tel. +971 (6) 526 4061 / Fax. + 971 (6) 526 4062
Email : sales@airwellcare.com
Web : www.airwellcare.com