



Management System
ISO 9001:2008

www.tuv.com
ID: 9105090819

MOTORIZED LOUVER



Our Product Ranges

Dampers

- 1 Fire Dampers
- 2 Fire / Smoke Dampers
- 3 Volume Control Dampers
- 4 Motorized Louvers / 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



INDEX

	Page
Introduction.....	4
Model Reference.....	5
Construction & Dimensional Data.....	6
Engineering Guidelines.....	7
General Compliance.....	8
Model Selection & Ordering System.....	9
Material Storage, Operation & Maintenance.....	10
Our OEM Partners.....	11



Introduction

Airwellcare Motorized Louvers 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 Louvers with maximum rigidity, cost-effective quality in Standard, to suit various HVAC Light, Medium and Heavy duty applications.



Selection & Design

Airwellcare Motorized Louvers 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 Louvers 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 (1.5mm) galvanized steel, stainless steel (304 / 316) Or Aluminium.

Louver Blades

Galvanized Steel Roll Formed 3V Blades Or Aluminium Aerodynamic Double Skin Blade
Width : 100.0mm / 180.00 mm
Blade Thickness : 1.0mm Alum / 1.5mm
Galvanized Steel Roll formed 3 V Blades

Refer to page No. 6 for optional blades

Louver 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.

Electrical Actuator

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



Gaskets

Silicone Rubber Gasket for Galv. Steel 3-V Blades & Neoprene gaskets for Alum.
Louver Blades are fixed on both sides of Louver blade edges to prevent leakages.

Bearings

Fire Resistant Brass Bearings are appropriately positioned on the Louver frame through the Louver 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 Louver blades and side frame.

Linkages

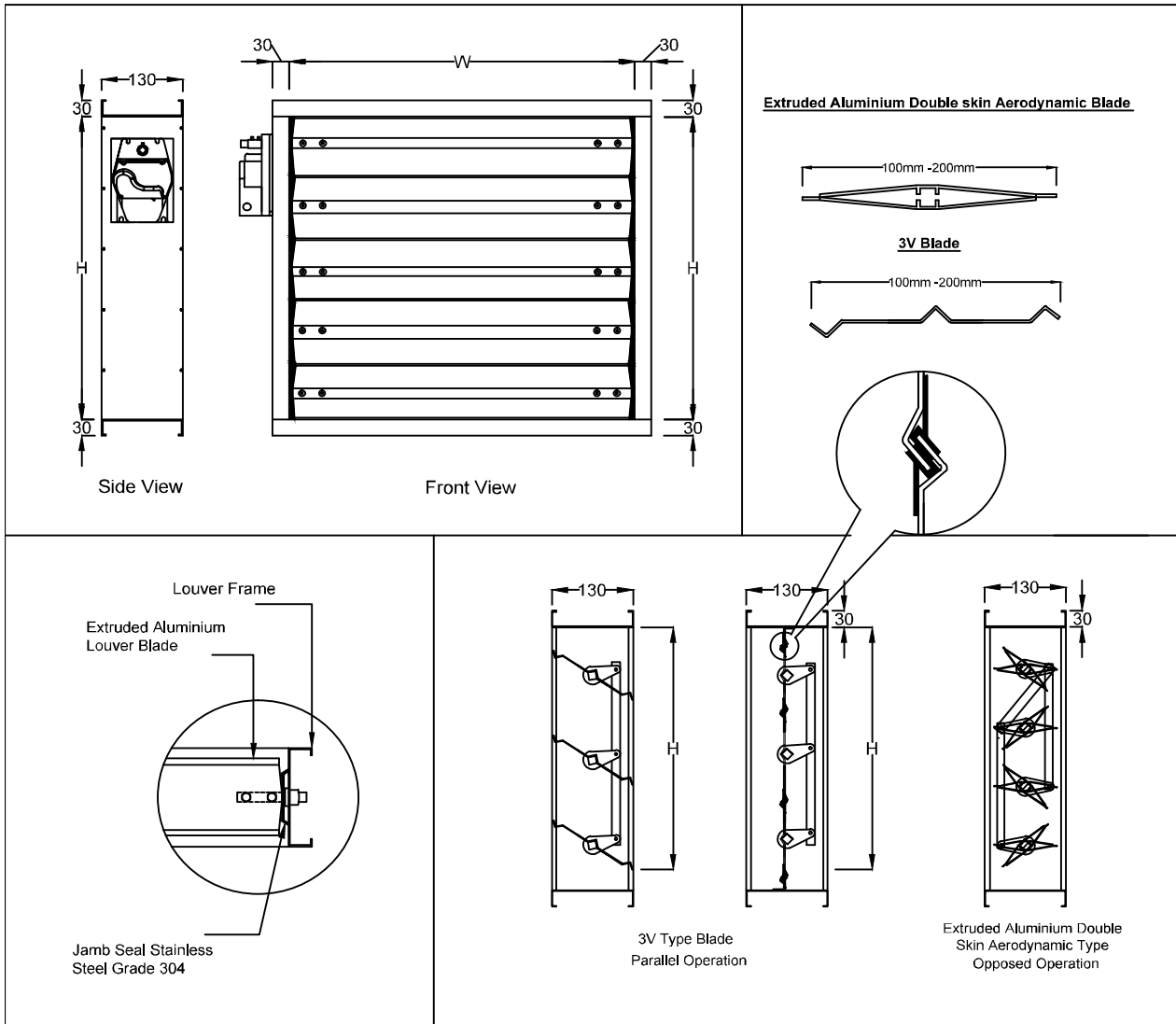
Mechanical Linkages are made of 2.8mm Thick. galvanized steel rigidly fastened with Louver blades concealed in frame, out of air stream.

Stainless Steel (304 Gr.) is optional

Frames

Standard frame width is 180mm. Frames over & above 180mm are optional.

Construction & Dimensional Data



Airwellcare Low Leakage Motorized Louvers 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 Louvers larger than the maximum single module size 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 Louver BLADES OPERATION

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

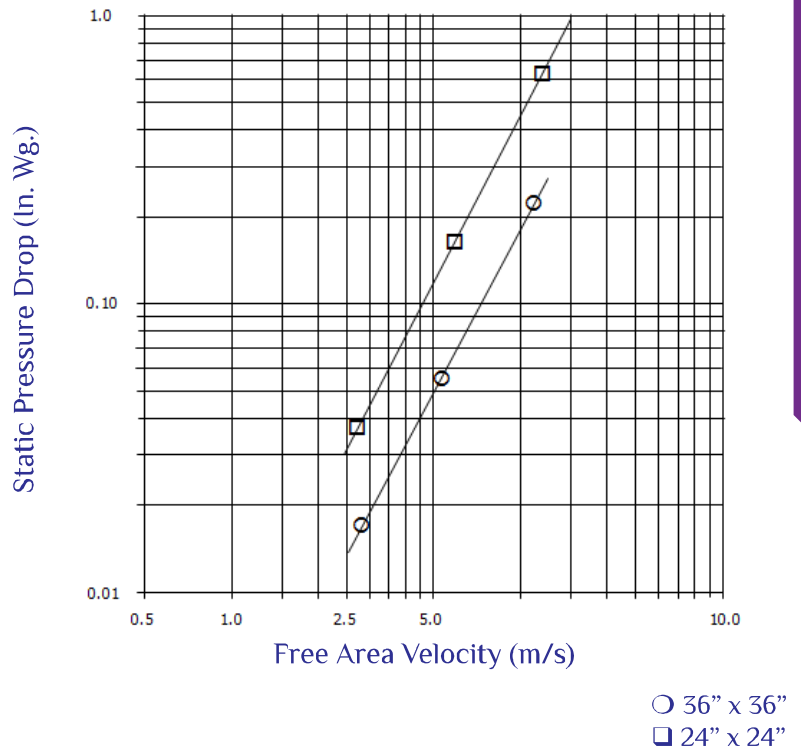
PARALLEL BLADES

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

OPPOSED BLADES

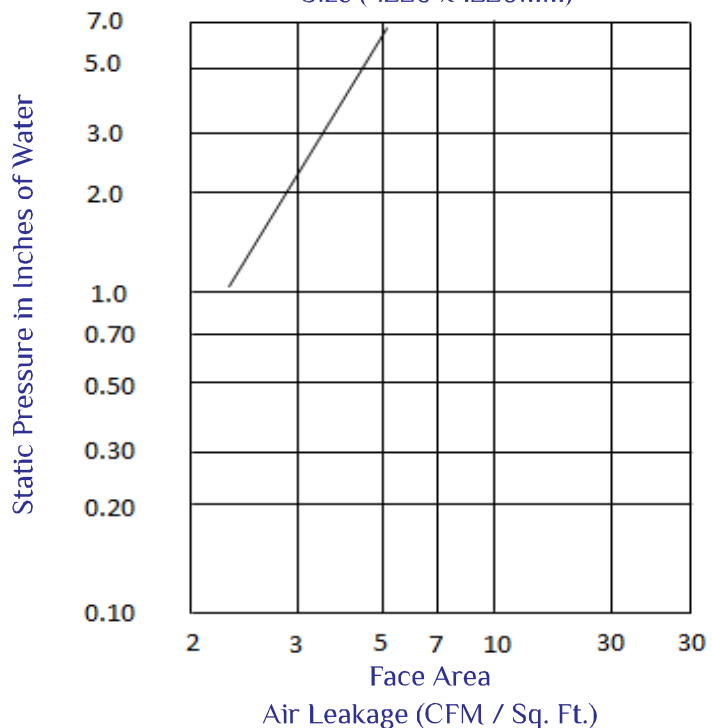
In this blade movements, adjacent Louver blades rotate opposite one another. Opposed blade configuration is typically used on Louvers that modulate airflow. Opposed blades gives slow increase in the flow when Louver begins to open.

Pressure Drop & Free area Velocity



Air Leakage

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





General Compliance

- The standard galvanized steel flanged type Louver casing complies with HVAC Ductwork Specification DW144.
- The material, Galvanized Steel coating conforms to Z-22 to Z-27.
- Stainless steel peripheral gasketing (Side Seals) included, which allows for expansion under high temp. conditions.
- All Types of Airwellcare Motorized Louver can be used where the maximum system pressure is up to 1500 Pa and duct velocities to 15m/s.
- Motorized Volume Louver 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.
- Powder Coating Standard RAL Finish, SDF, PVDF/Kynar finishes.

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 100mm	2 150mm	3 200mm	4 250mm
------------	------------	------------	------------

(4) LOUVER MOVEMENT

Select the Louver movement

A – Parallel Blade	X – Opposed Blade
--------------------	-------------------

(5) ELECTRICAL ACTUATOR LOUVER 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 Louver mounting options

W - Wall Mounted	D – Duct Mounted
------------------	------------------

Example : Model selected AMCL 100-G2-AFD

Motorized 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 Louver operation shall be indicated prior to ordering.
- 3) Wall mounted Louvers will have one side flange. Front & rear sides will have flanges for duct mounted application.
- 4) Louver frame depth will change according to the selection of Louver 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 Louver 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 Louvers are designed for least maintenance. However, it is recommended to have periodical inspection of Louver blades for damage, wear and tear etc.

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

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

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

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





P.O Box 2620
Factory at New Industrial Area, Umm Al Quwain
United Arab Emirates, Tel. +971 (6) 526 4061, mail : sales@airwellcare.com
Web : www.airwellcare.com