

A European Expertise  
**in airflow control**

for your buildings





# Aldes Group

## A global partner close to you and involved in all your projects

- A French manufacturer since 1925 employing more than 1300 people.
- A HVAC expert present in over 100 countries throughout a network of 15 subsidiaries and distributors in the Middle East, Europe, America, Asia, Africa and Indian Ocean.
- 5 production sites based globally.

## Committed from design to production

An engineering and design approach for all Aldes products:

- A Research & Development department.
- Development of innovative and integrated products based on market requirements and end-user needs.
- **Airflow control products designed and manufactured in the Middle East, but tested in reputed laboratories in USA, Australia and France.**

## The Aldes testing facilities

A complete range of facilities to carry out real-life tests or numerical simulation:

- A fire protection laboratory
- An air diffusion laboratory & numerical simulation laboratory for CFD analysis.
- An acoustics laboratory.
- A ventilation laboratory with fan test bench.

## The power of a manufacturer

- High capacity and reactivity.
- **More than 5000 VAV supplied per year in the Middle East region.**
- **More than 20000 constant airflow regulators supplied per year in Asia and 300000 worldwide per year.**
- Production sites in Europe and in the Middle East.
- A large industrial capacity to meet all kinds of projects.







# Aldes ME

## **A sustainable group for a sustainable presence in the Middle East**

- Based in the Middle East for more than 20 years.
- A local manufacturer investing with long term perspectives.
- Manufacturing facilities that meet European standards and processes.
- An 8000m<sup>2</sup> production site with state-of-the-art production facilities in the UAE.
- A proactive sales team available when you need, with full technical support.

## **A large range of solution adapted to all situations**

- A perfect match between Aldes products and GCC requirements.
- **Calibration performed in-house.**
- **Energy saving.**
- Performance for optimal on-site integration.

## **Choose a product suitable for your project**

Aldes ensures an accurate selection of the right product according to the size of your building.

### **\* General catalogue & website**

For an overview of Aldes ME offer and general product selection: [www.aldes.ae](http://www.aldes.ae)

**Aldes creates, designs and manufactures innovative products to improve Comfort, Indoor Air Quality & Safety inside buildings all over the World.**

# Comfort through controlled airflow

## Airflow control as a need

Temperature, thermal radiation, humidity, air velocity, personal activity and clothing: environmental and personal factors have a major impact on the comfort conditions inside any building. The control of airflow rate in HVAC systems is important to achieve correct **acoustics, indoor air quality with optimized comfort and energy management.**



## Aldes as a solution

Nowadays, **thermal comfort** is often considered as the number one complaint in office buildings. Several studies confirm that temperature control is a real issue for building owners and occupants.

*"We are building refrigerators inside ovens"* - William Whistler.

**Improving indoor air quality comfort with Aldes solutions** will definitely reduce absenteeism, improve productivity in any office and school buildings but also improve the health of occupants (especially in case of sensitive projects, such as hospitals or healthcare centres).

# Your well-being through a controlled airflow



# A COMPLETE RANGE OF AIR

## Variable air volume system

### VARIABLE AIR VOLUME BOXES



For modulated airflow (demand-controlled ventilation), Aldes offers a wide range of Pressure Independent and By-pass VAV boxes. They are used for maintaining comfort environment of a zone within a centralized air-conditioning system by supplying cold air as per the demand. Pressure Independent VAV system provides energy saving and is generally used in areas with high airflow variation and low noise requirements. By-pass VAV boxes system is a basic solution for providing comfort as per demand.

### VOLUME CONTROL DAMPERS



Aldes has specialized in delivering a wide range of volume control dampers i.e. rectangular or circular casing, single skin 3V-grooves or aerofoil blades, with manual quadrant or with motorization etc. VCDs with manual quadrants are mostly used in branch ducts for closing or adjusting/balancing the airflow as per the requirement during the commissioning of the building. VCDs with motorization are commonly used at the inlet and/or outlet of the AHU to open/close with the AHU.

#### Applications:

Hospitals, classrooms, offices, meeting rooms, ballrooms.

Any variable air volume system will also include:

- \* **Variable speed fan** (PI VAV) with VFD & pressure transducer or **constant speed fan** (By-pass VAV)
- \* **Grilles** and **diffusers**

### PRESSURE RELIEF DAMPERS



Aldes provides manual (with counter weight) or motorized PRDs customized to meet the client's/projects requirements. PRDs are installed in a constant pressure zone in order to maintain the required pressure. When the pressure is exceeded from the required level, pressure relief damper opens to release the excess pressure.

## Constant pre

# AIR FLOW CONTROL SOLUTIONS

## Pressure system

### Applications:

Stairwell pressurisation, laboratories, operation theatres.

Any constant pressure system will also include:

- \* **VAV boxes**
- \* **Fan**
- \* **Grilles** and **diffusers**

## Constant air volume system

### CONSTANT AIR VOLUME BOXES



For constant airflow applications, Aldes provides a large range of CAV boxes. They deliver a constant airflow over the entire range of differential pressure.

### CONSTANT AIRFLOW REGULATORS



As a European leader in airflow control, Aldes has developed a wide range of CARs to control the airflow inside the duct at a preset value. CAR can be used for both air supply and extract. No commissioning / balancing is required after installation of the CAR. Different sizes  $\phi$  80 mm –  $\phi$  250 mm are available suitable for an airflow range between 15 to 1100 m<sup>3</sup>/h. Standard range operating pressure is between 50 – 200 Pa while high pressure range is between 150 – 600 Pa.

### NON RETURN DAMPERS



Aldes offers a wide range of duct-mounted and wall-mounted NRDs. They are designed for use in supply and exhaust openings of an air-conditioning / ventilation system. Duct-mounted NRDs are generally used to avoid backdraft / reverse airflow inside duct. Wall-mounted NRDs are generally used to provide protection against rain, unwanted air and/or birds, insects etc.

### Applications:

**Supply:** Corridors, lift, lobbies, data centres.

**Extract:** Toilets

Any constant air volume system will also include:

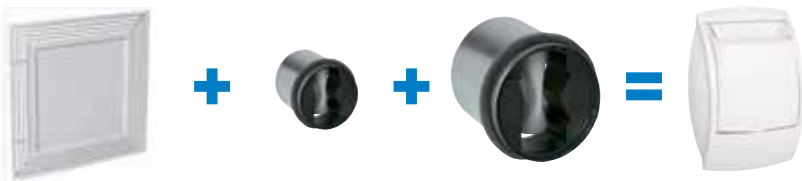
- \* **Constant speed fan**
- \* **Grilles** and **diffusers**

# The best comfort solution

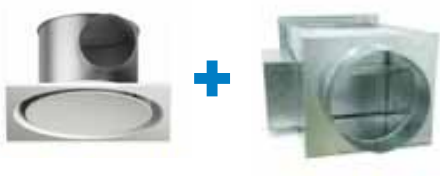
## Grilles & diffusers as an asset

The right selection of grilles and diffusers is necessary to ensure both occupant comfort and adequate air mixing levels. Based on both engineering and architectural concerns, Aldes design new innovative practical solutions, offering the best comfort and matching any application.

## Efficient & Designed solutions



## Best solution for VAV



**Airflow Control**

**+**

**Air Diffusion**

**=**

**The Best  
Comfort Match**





# Aldes airflow control solutions bring comfort to your most prestigious construction projects



**Ministry of  
Higher  
Education  
(Oman)**



**Binhai Hospital  
(China)**



**Madinat  
Jumeirah  
(UAE)**



**Mouthomet School  
(France)**



**Saadiyat Al Manara Art Gallery  
(UAE)**

## ALDES MIDDLE EAST

### Sharjah Office & Factory

Tel: +971 6 5578285

Fax: +971 6 5578405

### Abu Dhabi Office

Tel: +971 2 6436794

Fax: +971 2 6436715

[www.aldes.ae](http://www.aldes.ae)



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