

CHANGE **THE AIR** ^{N°26}

The Aldes air quality magazine

February 2011

On-site

T.Flow reinvents hot water

Reference

Shanghai World Expo

News

New fire regulations in Dubai

REPORT

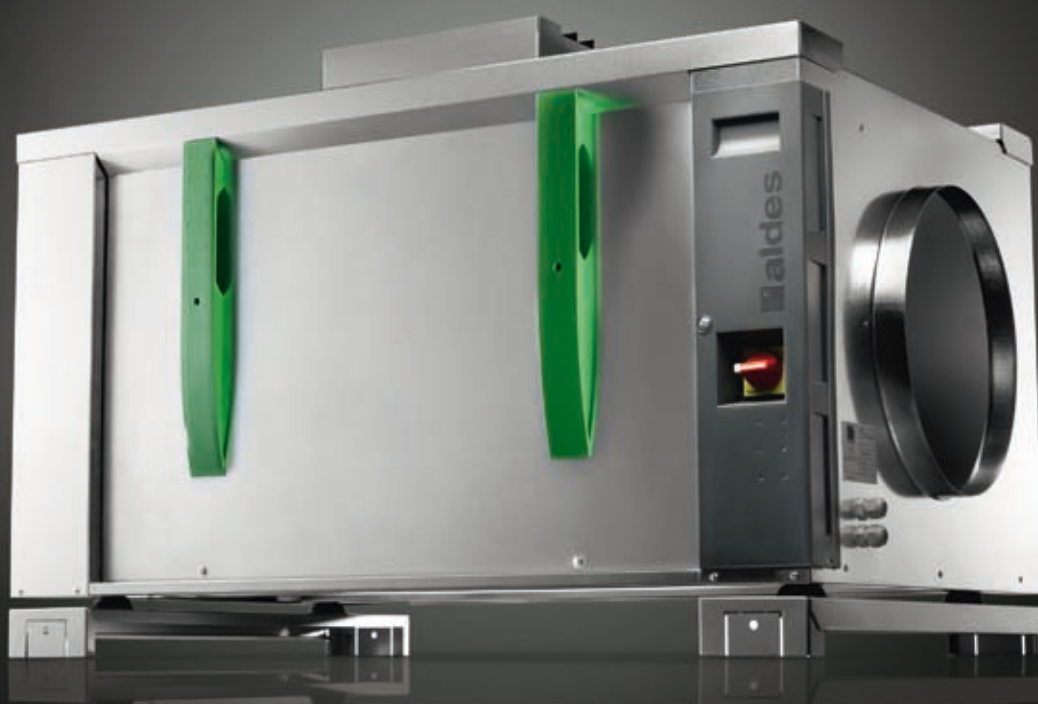
Hand in hand on low-energy projects – together towards 2012



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François Prioux,
Aldes Marketing Director



2012: meeting the challenge together

2012 is nearly here! All of us in the construction industry need to pull together to meet the challenge. We need to find the most effective solutions for the buildings of tomorrow: low-energy buildings that are ever more environmentally friendly.

Here at Aldes we are ready. We have already developed support schemes so that we can work alongside you. The construction field is changing rapidly, as is the world of building services. The biggest risk to everyone comes from standing still. You can find out more about the support we can offer on the "Reports" pages of Change the Air.

There's plenty more in this issue of the magazine. Our new products, of course, and our achievements. In the "Setting the Standard" section, you can see how our products installed in the Rhône-Alpes Pavilion at the Shanghai World Expo won over Chinese architects and property developers.

In the "News" pages, you can read about how our fire-protection expertise has been used in Dubai. As a result, we have been invited by the United Arab Emirates to participate in the writing of their national fire safety code.

For Aldes, combining technical expertise with on-site experience is essential. This, along with awareness of how building use is changing, allows us to meet the challenge of creating the "almost-passive- energy building."

To succeed in today's climate, we all need to do two things: stay ahead of the game and believe that we can always do better. Together, we can! So, 2012, here we come.....

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Hand in hand on low-energy projects – together towards 2012

Faced with a changing environment, the construction industry needs support to prepare for the regulation changes over the next few years. The leading players of all trades need to work alongside their partners. Aldes, the specialist in air quality, is no exception

On May 19th 2010 the new directive 2010/31/EU was published in the Official Journal of the European Union. It aims to aid all the countries of the Union to meet their obligations. Between now and 2020 they must reduce total greenhouse gas emissions by at least 20% compared with 1990 levels. *"This directive is another step towards achieving the energy-saving measures agreed 30 years ago."* explains François Prioux, Aldes Marketing Director. *"In 2007 the Grenelle de l'Environnement (French government environmental initiative) already announced that from 2012 buildings would have to meet strict low-energy consumption standards, or even passive energy."*

Always in search of innovative solutions

In the light of this, Aldes has been researching energy-efficient solutions for buildings. These benefits will be shared by our partners, architects, thermal performance consultants, property developers, home builders, installers, distributors and maintenance contractors...

"There are various ways we can offer support," says François Prioux. *"firstly by providing not just products, but whole solution systems. By training or providing information to every link in the chain, we can guarantee a level of quality right up to the installed product. Full details can be given to the owner and end user so that all the features of the system can be used easily, and so that the necessary maintenance contracts can be put in place."*

Participation in pilot projects

We're better together!

The LY house was a winner in the Rockwool Maison Respekt competition. Rockwool are specialists in mineral wool insulation. This is an unusual shared success story, with the owners, a firm of architects, a thermal consultancy and Aldes all working as a team.

The LY (1) house, in Chanteloup-les-Vignes (Yvelines, France), is unique: a cubic timber-framed house, on piles to accommodate the naturally sloping site. *"With our experience in sustainable development and training in eco-construction we proposed a bioclimatic house design"* explains Daniel-Denis Dubourg, from the local Souris Verte Architectes (Green Mouse Architects) practice. *"We gave a twist to normal living: the bedrooms are on the ground floor and the living area is upstairs with a wonderful view of the Seine Valley."*

To optimise the building's thermal performance, the architects teamed up with Paris-based Pouget Consultants. *"This project of a high-performance house at a reasonable price really appealed to us,"* adds Brendan Ver, head of the Thermal Assessment department, *"so we decided to enter it in the Rockwool competition."* The competition rewarded a house that is beautiful as well as environmentally friendly and economical, aimed at the mainstream market. From over 700 entries, the LY house was one of 4 prize winners.

The choice of heating

"The collaboration with Pouget Consultants was decisive for the choice of heating," reveals Valérie Carrette of

Aldes: experts with on-site experience

Aldes takes part in dozens of experimental projects every year.

Just one example: the impressive T.Zen 4000, one of Aldes' new Temperation® solutions. One of its first installations was in a prizewinning bioclimatic house (see below). We are proud of the fact that this house will consume less than the 50 kWh/m² primary energy per year required for 2012. *"For such projects, we don't just supply the product."* François Prioux stresses. *"We provide support throughout the process: from assessment, sizing calculations and computer simulation to predict equipment performance, right up to installation, with full technical support and training."*

Souris Verte Architectes. *"We had planned to use a humidity-controlled CMV system linked to a geothermal well, as the site has suitable ground water. That was without taking into account the drilling costs..."* Pouget Consultants came up with a more economical solution: the Temperation® system T.Zen 4000 (2), recently launched by Aldes. A visit was arranged for the project's participants to MCP Promotion, Hauts-de-Feuilly (Rhône, France) where passive houses have been fitted with the T.Zen. The visitors, all keen about technology, were won over! The icing on the cake is that the T.Zen 4000 also supplies domestic hot water. So, Aldes rose to the challenge of the Rockwool competition. Close collaboration was needed in planning the aeraulic installation and calculations of energy consumption. The T.Zen 4000 need not affect the house plan. The architects simply transformed a cupboard into the plant room. It was a great success: the LY timber-framed house is compact and super-insulated with mineral wool. It consumes 48 kWh/m²/year in primary energy and produces 20: a net balance of 28 kWh/m²/year. This is even lower than required by the Rockwool competition!

The T.Zen 4000 does not change the house plans. The architects simply transformed a cupboard into a technical room. With great success: the compact LY house, wood frame, super-insulated with rockwool, will consume 48 kWh/m²/year of primary energy and will produce 20: a balance of 28 kWh/m²/year. This is still less than the requirements of the Rockwool competition!

(1) The project is under construction, viewable on the internet at www.endirect-maison-respekt.com/chantiers/maison-ly.

(2) The T.Zen 4000 provides ventilation, winter heating, summer cooling and domestic hot water.



Project meeting with, from left to right, Daniel-Denis Dubourg of Souris Verte Architectes, Frédéric-Jérôme Cardona head of the Maison-Respekt project, Jean-François Dumand of Rockwool, Brendan Ver of Pouget Consultants.

How we helped create the first passive municipal building



Testing today the technologies of tomorrow

Apart from one-off projects like the bioclimatic house, Aldes works on projects that can be reproduced. This aims to make use of industrialised building techniques and working methods to create the

housing of tomorrow. *“It is in our interests to make the most of the time we have to test our techniques before putting them on the market in 2012: the French BBC Effinergie (efficient low-energy building) labels are there for that,”* François Prioux explains. *“We helped to produce the first passive municipal social housing building in France (see box on page 7). This project was a real “workshop” of skills in which we collaborated at every stage: help with sizing, on-site supervision, system commissioning... we were able to see how our equipment interacted with other technologies, such as the external thermal insulation. This enabled us to obtain the best results in energy efficiency and comfort.”*

While Aldes is always in search of innovative solutions, sometimes the group adapts its products to the constraints of specific project. This often happens with certain lines such as grilles and diffusers for large installations. If a product doesn't exist, we just have to invent it! *“As part of our service, we always find THE solution to our clients' problems,”* stresses François Prioux. *“If the client needs a system that can be taken apart easily to clean the filters, we make it! (see page 8) The new system with a clip-on grille has even been added to our catalogue! If a building needs an unusual installation, like enormous sound baffles for the generator room of a hospital, we'll make it!”* (see box on page 9)

For refurbishments too, Aldes supports its partners. *“We make our expertise in aerualics available to building owners, installers and maintenance firms. We can provide help with diagnostic surveys or training for proper installation of our solutions, even for complex refurbishment projects.”*

* BBC Effinergie labels: low energy consumption French label.



Aldes solutions are made to last

Satisfying the end user

Aldes solutions are made to last. It is vital to understand how they will perform long term, and how the building occupants will behave in normal use conditions. This is why the group takes part in “measured” projects. Sets of sensors record temperature and humidity values or ventilation rates. *“In the La Clairière building (see box page 7), in Reims,”* stated François Prioux, *“the apartments were studied to evaluate the actual consumption of the ventilation system, and the project's energy performance. These on-site measurements enable us to check and calibrate our simulation tools.”*

The La Clairière building was the object of another sociological study to evaluate residents' feelings.

Aldes intends to take part in other experimental projects of this kind. This will give us as much data as possible on user comfort, whether acoustic or thermal.

Formalising our support

Aldes doesn't just offer support to exceptional projects. We have provided support to our partners for many years. What is new is that we have now formalised this to make it clearer. *“We want our clients to understand the full range of services that we can offer their projects in air quality, comfort and safety,”* explains François Prioux, *“This is why we have listed the different kinds of support packages available for 2011, from training to more specific services: help with diagnostic surveys, from design to installation and maintenance. We have a wide range of tools available.”* ■



Partner in the multi-family housing of the future

Trying out tomorrow's technology

La Clairière, located in Bétheny (Marne) is the first passive municipal social housing building in France. Le Foyer Rémois built it with the aim of trying out the best in energy-saving technology. Low-energy housing might be built using more industrialised methods as a result. The Aldes group took part in this challenge: to achieve less than 65 kWh/m² per year in primary energy use and less than 15 kWh/m² per year in final energy for heating.

Research and development at Le Foyer Rémois is focused on industrial building methods. This social housing provider is participating in European programmes such as EURHONET and EFL*. *"I manage the energy-use aspect of these projects"* says Jean-Denis Mege, Development Director for Le Foyer Rémois, *"These projects have taught us something: it is easier to create low-energy buildings if the performance of exterior insulation and good ventilation are linked."*



Aldes recommended installing a heat recovery ventilation system in each dwelling. These are Dee Fly type with a high-performance heat exchanger. The heat recovered from the extracted air (90%) is used to heat incoming air. The central air supply and extraction fans are fitted with low-energy "micro-watt" motors. This allows big savings in energy while providing a high level of comfort with pleasant filtered air.



Polyester graphite and heat recovery ventilation: the dynamic duo!

La Clairière was built along these lines and consists of 13 social housing units with from 1 to 4 bedrooms. Jean-Denis Mege explains, *"For the best energy performance, we combined external polyester graphite thermal insulation (based on BASF's Neopor®) with an Aldes heat recovery ventilation system.."*

Real exchanges of expertise

Apart from the choice of products, exchanges of expertise were the cornerstone of the La Clairière project. According to Jean-Denis Mege, *"Aldes put a lot of effort into the working procedures, thermal and sizing calculations. The group was with us right the way through the project, from the initial assessments to writing the users' guide for the appliances."*

Tenants have been living in La Clairière since March 2010. Their homes stayed cool in spite of the summer heat. To check the performance of the installations, two studies were begun. The first is a sociological study looking at the level of tenant satisfaction. The second is measuring the actual consumption of the electrical equipment. *"We would like to be able to plan for future projects in anticipation of 2012."* adds Jean-Denis Mege.

* EURoepan HOUsing NETwork and European Foundation for Living.



A new grille for Pantin's Grands Moulins, near Paris

The Grands Moulins at Pantin have taken on a new lease of life. As industrial flour mills they fed Paris for over a century. Now the buildings have been converted into offices for the bank, BNP Paribas. Aldes was involved in the project.

This is one of France's most spectacular industrial heritage sites. Pantin's Grands Moulins have been transformed into 50,000 m² of office space. At the end of 2009 they opened their doors to 3,200 new occupants: the workforce of BNP Paribas Securities Services. The place still has its character, but the inside has been gutted and totally rebuilt to HQE (high environmental quality) standards. The former grain silos now house open plan offices. The frontages have been glazed to take advantage of as much natural light as possible.

Easier maintenance for smoke extraction dampers

This was an exceptional refurbishment, but the investor took the modifications even further. In particular the maintenance of the smoke extraction dampers was simplified. *"To reset each of the 250 dampers, he didn't like the idea of having to dismantle all the facing grilles – a long and arduous task!"* explains Karen Dhubert of the Ingérop consultancy. There were two possible solutions to make maintenance easier. The first: motorised dampers. But these would need to be built in, with the risk of damaging the walls and disturbing the BNP Paribas staff already working on site.



Creating a clever clip system

The second solution: change the grille to a system without screws that can be dismantled easily. There was no suitable grille to fit the dampers installed. Yet this is just what Nicolas Cotard, Aldes' strategic manager for the Region of Paris, France, suggested. *"We mocked up a rough prototype,"* he remembers, *"a flat-framed grille to fit the smoke extraction dampers at the Grands*

Moulins (ref. GGH), with a very simple clip system. There were already clips of this sort on the standard type GFA 007 grilles. In two clicks, the grill comes off and the damper can be reset!"

But after making this prototype, production on an industrial scale was needed. There were 250 smoke extraction dampers in the BNP Paribas offices. Nicolas Cotard observes, *"The sales department quickly saw the potential of this grille for our clients. And in 2010 the new clip-on grille (ref. GGH 007) was even available in the latest Aldes catalogue!"* So, have there been any orders yet? The Ingérop consultancy now intends recommending this type of grille in its future projects. *"It's so practical!"* confirms Karen Dhubert. ■

*HQE: High Environmental Quality French label.

Joining forces for special projects

United Arab Emirates Special care for the Umm Al Quwain Hospital

In 2009 Umm Al Quwain, one of the seven Arab Emirates, began construction of its general hospital. An opportunity for Aldes Middle East to demonstrate the scope of its services.

"We were very keen to participate in this project," says Gaëtan Pierrefeu, Director of Aldes ME. "It's a gigantic site of 50,000 m². It's interesting for several reasons. The complex is huge and, in the sensitive sector of health care, investment in specific equipment is necessary."

European expertise and standards but locally-based

To win this contract, Aldes ME played to its strengths: a local bid from its new Sharjah factory base, its European expertise and comprehensive coverage in fire safety and air distribution, the confidence of the Minister of Public Works who lists Aldes among his trusted suppliers. *"Of course, we went beyond our client's specification,"* Gaëtan Pierrefeu continues, *"We sought the best and most appropriate solution for each aspect of the project."* For fire safety, Aldes

recommended the ISONE fire damper, which prevents fire spreading. *"The occupants of a hospital – babies, elderly, sick or disabled people – have reduced mobility. This is why fire safety protection needs to be very effective. ISONE has been used for years in a particularly high-risk setting: nuclear power plants."* Aldes ME has shown great flexibility in producing non-standard products. One example is the set of sound baffles over 2m long for the generator room.

Proud of our performance

Aldes ME didn't just come up with efficient solutions, but showed just how effective they were. *"For this project, we calculated the delivery loss due to the aerodynamic components and conducted calibration trials on our variable flow units with the consultants (Hospital Designers & Planners) and installers (biPower)."* Aldes was involved throughout, training installers or providing technical support to the consultants. Sales representatives were on site every week. Gaëtan Pierrefeu states proudly, *"Our full commitment proved that the client could count on us. When sound baffles were needed urgently, we made them in 2 weeks, where normally it takes 4 to 6 weeks."* This cooperation helped to ensure that the early 2011 completion date could be met. ■



DUBAI EUROPEAN-STYLE FIRE SAFETY ARRIVES

As an expert, Aldes is in demand

to develop regulations for air quality and fire safety. In Dubai, Aldes ME has just helped draft fire safety standards for the United Arab Emirates, now being reviewed by the country's authorities before publication.

A long process during which Aldes won the confidence of the Dubai government



Regulations which allow victims to escape smoke

There are over 2,000 accidental fires in buildings every year in Dubai!

It is easy to understand why fire protection has become a Public Safety priority for the country. It forms part of the strategic plan for 2009-2015. *“Architects, consultants and construction firms are all impatient to see fire safety regulation in place,”* states Alexandre Benoit, Head of Marketing for Aldes Middle East. *“While they are waiting, everyone follows the specification they are most familiar with: American, British, German...The situation needs clarifying, especially as so many buildings in the United Arab Emirates are skyscrapers, which present particular safety issues.”*

Against this background, Aldes was called in, even though the group was still fairly unknown in the United Arab Emirates only 2 years ago.

An urgent need to improve safety

Alexandre Benoit recalls, *“As soon as we arrived in Dubai, we understood that fire safety needed improving urgently for the good of the population. But before progress could be made, we needed to understand the local building techniques used in Dubai. We found that these were heavily influenced by those in the United States. It was only after we had demonstrated our expertise to the authorities that we won their confidence. Our parent group provided support.”* A “Fire Protection” seminar was organised in Dubai in April 2009. Those involved included Marcel Frering, Head of Fire Protection and Michel Rouyer, Aldes fire protection expert on the European Committee for Standardization (CEN). Bruno and Stanislas Lacroix, C.E.O. and M.D. of Aldes, met with those responsible for Public Safety in support of the Dubai subsidiary’s approach. Alexandre Benoit and Gaëtan Pierrefeu, Director of Aldes Middle East, discussed European fire safety measures at length with the Public Safety authority. *“A fire is more than just flames,”* explains Alexandre Benoit. *“There is also the heat and the combustion gases which intoxicate victims and stop them seeing their way out. It only takes a few minutes to reach high temperatures and for smoke to*

spread through areas near the seat of the fire, unless there is a system of compartmentalisation and smoke extraction.”

Regulations which allow victims to escape smoke

To respond effectively to different fire risks, the CEN has published standards based on the use of dampers which stop fire spreading from one room to another. Others relate to smoke extraction systems for corridors, as smoke intoxication and inability to see emergency exits cause deaths away from the fire itself. *“These devices have other advantages. They limit fire damage to one part of the building and assist fire-fighters by reducing the temperature and improving visibility.”*

Impressed by the European fire safety standards, the Dubai Public Safety authority consulted Aldes when finalising their regulations. *“The first ones were based on Singaporean standards which we amended. Clear definitions of systems were added, notably those referring to heat transfer. We were even able to include extracts of French regulations (IT 246) on smoke extraction. Different levels of safety apply according to the height of the building and how “sensitive” it is (hospitals, schools...)”*

Mission accomplished: the 650 pages of the “United Arab Emirates Fire Code” have been fully drafted and have been at the review stage since August 2010. *“This regulatory text is just the start for us,”* Gaëtan Pierrefeu insists, *“We hope to follow up our recommendations with the other Emirates, and to continue supporting the Dubai authorities in protecting lives.”* ■

SEAL AND BREATHE MORE EASILY!

Installing mechanical ventilation in older-style tower blocks: it's really not that difficult...
On-site example of sealing shunt ducts in a 17-storey block

In the 1960s, buildings were ventilated naturally. Individual ducts from each apartment were linked to a central air collector running the full height of the building. This “shunt” principal uses the fact that warm air is lighter than cold to produce a natural draught. It also makes use of wind.

But from 1975, the shunt system was abandoned in favour of CMV. Shunt ventilation is uneven, more effective near the bottom of the collector than near the top, and sometimes poor in summer when the ambient temperature weakens the thermal draught effect.



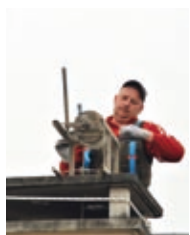
Sealed CMV only

The 340 apartments on Paris’s Boulevard Auriol were built at the end of the 1960s and all naturally ventilated. *“The 3,298 single-glazed windows had very poor thermal performance.”* stresses architect Michel Jacotey of Jacotey-Voyatzis (Bry-sur-Marne, France). *“This is why the Property Management Department decided to renovate the blocks. The first stage: changing the windows to profiled aluminium casements. These are double-glazed and have thermal barriers. A CMV system was also installed.”*



Re-using shunt ducts

These old buildings were not designed to take the aerualic ductwork of CMV systems. *“We couldn’t do major work to fit these,”* explains Michel Jacotey, *“without causing damage to the apartments or disturbing the lives of the hundreds of families living in the blocks. So we decided to make use of the existing shunt ducts.”*



It was not that simple. Over the years the ducts had cracked. The solution was to “sleeve” the outsides with a sealant. The feasibility study was long, using smoke machines and video monitoring.



Duct before treatment.



Duct after treatment.

A pilot project!

Work was carried out on the tower blocks at Boulevard Auriol as a pilot project. This is the first phase of bringing the blocks up to standard. These improvements are part of Paris’s climate plan.

The city’s Property Management Department has committed to reducing the primary energy consumption of its buildings. For some, this will be less than 80 kWh/m² per year.

A first stage of 105 kWh/m² per year in primary energy was reached by replacing windows and installing a CMV system. Then a second phase of work began: the heating was modernised and the insulation of the apartments improved.

Five storeys at a time

Benoît Clouët, manager of Technimo (Lyon and Sotteville-Lès-Rouen, France) describes the sealing process: *“The damaged surfaces of the old air ducts were covered with an insulating sealant containing an elastomer resin. Several layers needed to be applied very carefully to ensure that the duct surfaces were smooth and totally sealed. This cladding process is normally carried out in smaller buildings, but these blocks were not much more complicated: we worked in stages of five storeys, as if the towers were made up of four smaller buildings, one on top of the other.”* The project just took longer. It needed the combined efforts of 6 people working full-time for 6 months to transform the ducts of the 340 apartments.



Like a normal air-duct system

From hereon, everything was normal! Once the full length of the ducts had been sealed as far as the terrace, Technimo created a plenum. *“A sort of hub plenum, to which we attached the ventilation unit,”* explained Laurent Bartolo, project manager for the installation firm COGEEF (Créteil). *“On the other side, in the kitchens and bathrooms of the apartments, we fixed Bap’SI extract terminals onto the duct end shafts”.*



Finally, with their shunt ducts carefully sealed, the tall towers of Paris’s Boulevard Auriol are up to the same standard as any normal aerualic system. The CMV can ventilate and the residents can breathe more easily! ■

The Experts

Contracting authority: Régie Immobilière de la Ville de Paris (Paris City Property Management Department).

Building Services Engineers: SIPEC (Champs-sur-Marne, France).

Architect: Jacotey-Voyatzis practice (Bry-sur-Marne, France).

Installer: COGEEF (Créteil, France).

Extract duct specialist: Technimo (Lyon and Sotteville-Lès-Rouen, France).



TWO HOUSES, ONE T.FLOW

A 2-in-1 device combining single flux ventilation and domestic hot water with a thermodynamic water heater. The T.Flow 200 Hygro is a winner on two fronts: new-build and renovation projects. This major advantage has already persuaded Rioux Associates, under the “Aldes-Maison de l’air” label, to offer T.Flow to their clients. Here are examples from two sites in the south of France

The “Maison de l’air” (house of air) network is a group of specialists who can deal with all air-quality problems in new or refurbished homes. Rioux and Associates, based in Tain-l’Hermitage, have been serving the Drôme département since 1992. They have worked with Aldes as part of this network for over 15 years.

“Aldes is a real partner and their products are prominently displayed in our showroom,” declares Sylvain Maurin, co-partner. Aldes organises training courses every two years. Two employees from Rioux follow these regularly to learn about products including the impressive T.Flow.



• **Saving energy and space in new homes**

Sylvain Maurin installed one of the very first T.Flow 200 Hygro models in June 2010. This was in a new house in Chantemerle-les-Blés (Drôme). The plan is L-shaped, with a large living area, a mezzanine and two bedrooms. Rioux Associates recommended installing the T.Flow in the storeroom next to the kitchen.

“T.Flow combines two functions in one device: integrated CMV and water heating (DHW). It needs to be housed in a technically-adapted

room,” explains Sylvain Maurin. Once the ductwork was in place above the false ceiling in the kitchen, “we decided to put rubber blocks under the device to insulate it from the floor and cut out any vibrations.”

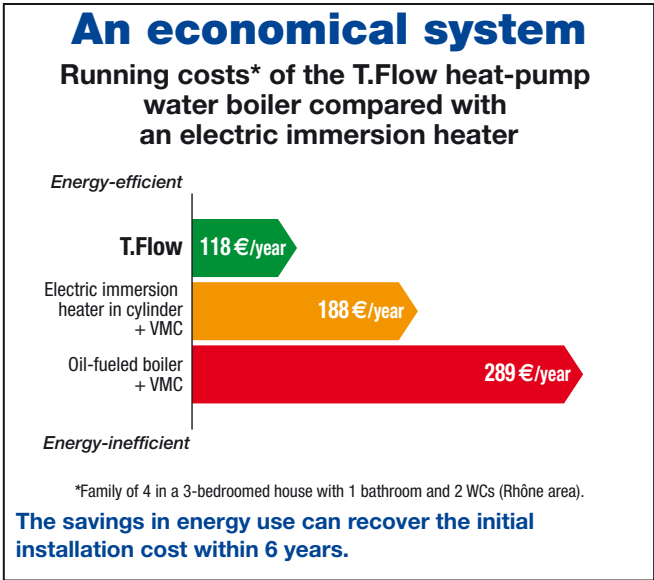
T.Flow combines two functions in one device: integrated CMV and water heating

The T.Flow measures 0.70 m in diameter and 1.70 m in height. It is coupled to the humidity-controlled exhaust grilles. These open automatically according to the humidity in the air. Heat removed from air extracted from the house by the CMV is recovered and used to heat the domestic hot water.

Once the desired temperature is reached (45°C for economical use), the contaminated air is evacuated via outlets in the roof or façade. By recovering heat from the extracted air, savings of up to 75% can be made on water heating (DHW).

But the T.Flow is also a space saver. It holds only 200 litres, as opposed to the 300 litres of a normal hot-water cylinder. As Sylvain Maurin explains: “The water is being constantly heated by the CMV, so the capacity can be reduced.”

An Aldes technician helped with commissioning, to the satisfaction of the new owners. “They are very pleased with it”, declares Sylvain Maurin, who met them just a few days ago.



• **For refurbishments too**

Romans-sur-Isère (Drôme) lies 20 km to the south-east of Chantemerle-les-Blés. Another Rioux project, but a refurbishment this time. The owners have decided to make their house more energy efficient and a huge renovation project will begin in October.

“They want to rip everything out,” says Sylvain Maurin. They intend to rewire, change the oil-fueled heating for programmable electric background heating, install double glazing and fibreglass loft insulation...and install a T.Flow 200 Hygro.

The owners of this two-storey house have also followed the advice of Rioux Associates and have decided to install the latest Aldes device. Sylvain Maurin explains their choice: “My clients really like the fact that the T.Flow does two jobs at once, that of CMV and water boiler.”

The choice also makes sense when it comes to cost. According to Sylvain Maurin’s calculations, the difference between installing a T.Flow and a normal hot-water cylinder is around 1,500 euros. This can quickly be recovered in the energy savings produced by the T.Flow: up to 10% reduction in energy for heating and a saving of up to 75% for domestic hot water (DHW). “If we add to that the efficient ventilation and the tax credit available in France, it soon adds up!” ■

T.Flow: NF Electrical Performance Certificate



Just announced: the T.Flow system has just been given the French standard “NF Electrical Performance Certificate”. This label guarantees the product quality and performance throughout its manufacturing stages. The criteria are strict: the Aldes factory which makes the T.Flow was subjected to a lengthy audit. Systematic checks were made during manufacture. Performance was tested regularly to see that this matched advertised claims. It is worth noting that this certification is not mandatory. Aldes requested it in the interests of transparency. Bravo!



Bap'SI Twin

High flow and design do mix!

You all know Bap'SI, the only self-balanced air extract terminal with no grille. Well here is Bap'SI Twin, the high flow version (up to 150 m³/h). The ideal range for your commercial sector projects! Two models are now available: with a 125 mm diameter collar for new-build, and without collar adaptable to all old duct diameters for refurbishments. There's a choice of flow too. The standard range offers a series of fixed flow rates. On the new modulo range, the flow can be adjusted, so that just one reference in stock can be adapted to the needs of all your projects.

Twisted

Diffusing in style

There was a time when air-conditioning diffusers for the commercial sector were not always very pretty. The most effective* swirl the air to give a more even and comfortable ambient temperature. These are shaped like small propellers and the blades soon get covered with dust that is unsightly and difficult to clean.

But now, there's Twisted!

Twisted is a solution which combines an effective patented diffusion system with stylish design. Fitted in place of a ceiling tile, the diffuser is adaptable for a range of flow rates (150 to 650 m³/h). Blower and extractor versions look identical.

The result: all the Twisted elements in a room will be the same size and same style. Architects love it!

* High-induction helical jet air diffusers



inoVEC micro-watt

Incomparable performance and practicality



Demands for energy saving in the construction industry are constantly evolving. In response, Aldes is now offering its second generation of low-energy ventilation units. These are aimed at the public and tertiary sectors.

The complete range consists of 7 C4 monobloc units with flow rates of 1,000 to 12,000 m³/h. These innovative high-performance units guarantee a C4 certification of 160 mm Ø across the range. The consumption is even lower: up to 30% saving compared with current micro-watt CEV.

The inoVec micro-watt is a real showcase for Aldes' know-how. It is the only pre-wired low-energy unit and is available with the air outlet directed either vertically or in line.

The micro-watt motor box is now on the unit casing, giving increased control.

Maintenance is made easier by the doors which open sideways. These are wide to allow easy access to unit's working parts.

Bahia Compact micro-watt

At home anywhere!

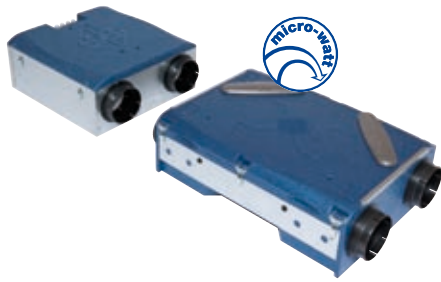
It slips into any space, it's not greedy and it gets on with its work quietly too! The Bahia Compact micro-watt ventilation module has nothing but advantages. It is only 19 cm high, so is ideal for fitting into suspended ceilings or cupboards during refurbishments. It can be fitted in storerooms or under flat roofs in modern buildings.

With its very low-energy motor, the Bahia Compact micro-watt only consumes 8.3 W-Th-C*. It is quiet enough to be installed in the living area of any home with a noise level (SoundPress, 1m) of only 41 dB(A).

Installers will find the Bahia Compact micro-watt full of winning features. Connection to ducts is easy with its clip attachments. It can be fixed in any position, on a wall as easily as on a ceiling. Electrical connection is also simple and rapid. The connectors are accessible without removing the cover.

* Depending on configuration





Dee Fly

Heat recovery ventilation – new NF certified range

Aldes' Dee Fly heat recovery ventilation has just obtained French NF certification*. This is a guarantee of design quality and product performance. The Dee Fly range is designed for single and multi-family housing.

Dee Fly features the latest technology: high-efficiency heat exchanger 90% heat recovery from extracted air, low-energy micro-watt motor (electrical consumption is one third that of a normal motor). It guarantees air quality, energy savings and protects the environment. Dee fly is fully adaptable, easy to maintain and can be installed in many different ways.

* NF: The French standard "NF Electrical Performance Certificate".

C.Smaller

The first central vacuum-cleaning system for apartment blocks

Do you dream of a central vacuum system in your apartment? Well, Aldes has created it! C.Smaller is the first central vacuum-cleaning system which can be easily fitted in apartment blocks. It is half the size, but is just as powerful as Aldes' C.Cleaner, It can remove dust efficiently over an area up to 200 m², leaving the air in your apartment perfectly clean.

If you are a developer, installing C.Smaller will add value to your property. Make the most of it!



EHL

The air outlet that doesn't like attracting attention

What makes the new EHL air outlet so special? It's so discreet! A feature which won it a Design trophy at Batimat, the major Buildings and Constructions Exhibition in France. It's slim at only 43 mm by 172 mm. The range of finishes (white, aluminium, black, brown, oak effect, ivory) allows it to blend in with window frames. Even better, the air jet is oriented towards the ceiling, so the air flow is unnoticeable. But that's not all. With its humidity-controlled technology, EHL is energy efficient. The air flow can be adjusted to suit each room, and without electricity! And when it comes to installation, nothing could be simpler: it just clicks into place!



DFE Compact 600 and DFR micro-watt range

Innovations in heat recovery units

- The DFE Compact 600 is particularly suitable for installing in each classroom of a school. It is extra-slim, less than 320 mm high, so can be installed above suspended ceilings.

But for a small unit, it offers a big advantage: double function. With its 100% by-pass, it can pre-heat incoming air in winter and cool overheated air in summer. What's more, it can be remote controlled. The unit still has all the main features of the of DFE range: micro-watt motor, high-efficiency heat exchanger and integral controller. Really, it's big in everything but size!

- Next we present the DFR micro-watt range with rotary exchanger. This is designed for large commercial projects and can handle up to 15 000 m³ of air per hour! This amazing performance is possible thanks to a high-efficiency rotary exchanger. This increases the heat-exchange surface without greatly increasing the exchanger's size.

Like the other micro-watt units, the DFR with rotary exchanger is pre-wired and will work from the moment it is installed, without the need for further adjustment (plug and play). There is an integral processor for easy communication with central building monitoring systems.





Everything you want to know about Temperation®

Would you like to know all about Temperation® and the T.Flow and T.Zen systems? For single or multi-family housing? Our new training package is just for you, whether you are a consultant, installer or maintenance contractor.

“Since mid-June 2010, 80 people in France have already taken this course, which Aldes has added to its training programme,” says Anne Delafosse, Aldes Training Manager. *“Teaching takes place in two Aldes training centres: in Vénissieux, near Lyon, and Marseille. Both have recently been equipped with working test benches for our Temperation® range. You can handle the equipment in real situations and follow case studies: system installation, maintenance diagnostics and repair.”*

The training also includes a teaching workshop for theory, techniques and regulation. All are vital for correct specification, installation and maintenance of Temperation® systems.

All Aldes training is carried out by professional trainers, specialists in ventilation and Temperation®. Within France, OPCA (Organisme Paritaire Collecteur Agréé) funding may be available. ■

“So glad you called in to see us!”

We have a new “Welcome to Aldes” look. Our branches throughout France are now more visible with new clearer signage. You will be welcomed more professionally and will find all the technical documentation you need as well as the training to help you carry out your trade.

Even better, we have re-designed our showrooms so you can now see our systems displayed in Aldes style. You will also find products available from stock.



Our Bordeaux, Lyon, Marseille and Toulouse branches began their “Welcome to Aldes” makeover in 2009. In 2010 six new branches started flying the flag: Vitry, Strasbourg, Nice, Rennes, Dijon and La Courneuve. Don't hesitate to visit the one nearest you! ■



Everything from Aldes in DXF

Architects, building services engineers, installers and consultants, you can now integrate Aldes products directly into your drawings thanks to the Computer Aided Design software AutoCAD MEP®.

In an exclusive collaboration at the request of Autodesk, Aldes has produced two “libraries.” *“This is a first for AutoCAD MEP®,”* announces Autodesk after-sales engineer Julien Drouet. *“It brings together major players in the industry for the benefit of users.”*

The first library consists of 3D intelligent objects (ducts and ventilators), which can be connected on AutoCAD MEP® as they would in the real world. The second is of 2D representations, perspectives viewed from above, side and front. And the advantage? They are drawn in standard DFX (Drawing eXchange Format), the format created by Autodesk to share files across all graphics software. Aldes has already drawn over 350 3D objects and 6,000 DXF files. New products will be added regularly to the libraries.

You can download the latest version of these tools, available since September 2010 on both Aldes and Autodesk websites. You can also ask your Aldes representative for the CD containing the two libraries. ■

www.aldes.fr



SETTING THE STANDARD

WORLD EXPO IN SHANGHAI: IN THE SPOTLIGHT ON THE WORLD STAGE!

Aldes was the main partner of the Rhône-Alpes Pavilion at the Shanghai World Expo 2010. 200 countries were present at the event that attracted over 70 million visitors! This place of honour was earned as a result of the ventilation solutions the group proposed for the pavilion. These fully met QEB (Building Environmental Quality) standards.



“Better city, better life”.

It's a fact: the main theme of the Shanghai World Expo held from May 1st to 31st October 2010 was perfectly in step with Aldes' priorities.

“This is why we were so keen to take part in the World Expo in Shanghai, explains Victor Chonlane, Director of Aldes China, and why we chose to equip the Rhône-Alpes Pavillon.”

Aldes centre stage in the Rhône-Alpes Pavillon

Like the Rhône-Alpes region, this was Aldes' first time at World Expo. *“The links between Aldes and the region go back a long way,”* Victor Chonlane recalls. *“The group has its roots in Rhône-Alpes and our first Aldes China team was welcomed by ERAI (Entreprise Rhône-Alpes International) in Shanghai in 1998.”*

Aldes became the major partner for the Rhône-Alpes Pavillon. It provided effective solutions for ventilation, centralised air diffusion and extraction. This pavilion was an international showcase for Aldes' Chinese subsidiary. Even more impressive than the building – an example of real eco-design! – this should bring long-lasting benefit well after the event. In fact, now the exhibition is over, the pavilion is destined to become the home of ERAI Shanghai.

Hundreds of visitors

During the six months of the exhibition, Aldes China was able to make the most of this benchmark in technology and architecture. Aldes invited Chinese consultants, architects and property developers to a series of seminars. *“We invited 120 people to each meeting – the full capacity of the conference room – but there were often more who wanted to come and see our new developments,”* says Victor Chonlane.

A long journey!

The design of the Rhône-Alpes Pavillon demanded a lot of energy from the Aldes teams. As Aurélie Péneau, from the group's Export Service explains: *“We were with the Rhône-Alpes region from the start of the project in 2008. We had to adapt and find appropriate technical solutions at each stage as the architecture and plan evolved. To meet the specification to the highest standard, we even devised a special air-handling module, not in our usual range. In this sense, the project was a challenge from which we learned a lot.”*

Delivery times were a source of some concern. Time had to be allowed for shipping items as far as Shanghai (at least 45 days), then long delays for customs clearance (over a month).

And it didn't end there. Once on site, the systems had to be installed by Chinese contractors who knew little about air-replacement technology and nothing at all about heat recovery ventilation: the Chinese ventilation sector is still in its infancy. *“Fortunately, we were able to count on our teams from Aldes China”,* Aurélie Péneau continues, *“who trained up the installers and supervised the day-to-day installation.”*



Upstairs, downstairs, it's Aldes

Aldes systems are everywhere from basement to ceiling and around forty different products are featured: a heat recovery ventilation system, a low-energy extraction ventilator, the latest in air diffusers and air extraction terminals, a central vacuum-cleaning system installed in the pavilion basement and a HoZone extractor hood for the Paul Bocuse Institute Restaurant School kitchen.



© Denis Dessus

“One hundred and twenty is nothing compared with China's population of 1.2 billion. Nonetheless, these meetings have already borne fruit: we were able to make contact with the biggest property developers in China. Increasing numbers of them wish to collaborate with us. In particular, we have signed an agreement with Vanke, China's N°1 property developer, to equip all its Shanghai projects with Aldes products. Clearly, with its performance at World Expo in Shanghai and the Olympic Games in Beijing (Cf. Change the Air N°23), Aldes really has made quite a name for itself in China!” ■



On 15th May 2010, the Rhône-Alpes Pavillon was inaugurated in the presence of the President of the Rhône-Alpes Region Jean-Jack Queyranne, the Mayor of Shanghai Han Zheng, the Director of Aldes China Victor Chonlane and the Chief Executive Officer of Aldes Bruno Lacroix.



Dubai

A new factory for this outstanding shop window

The Aldes Middle East team moved into its new factory in 2010. It is better equipped and four times the size of the old site, now too small for the growing subsidiary. The new site is 8,000 m², with 6,400 m² just for production.

Even clients have noticed the advantages of this factory. Zakaria Sawalha from HDP (Overseas), a company that specialises in the design of medical facilities, commented when she visited the factory: "This is a huge new installation. It is well

thought out and gives visitors the fantastic impression that the people behind it are really focused on client satisfaction. Everything is organised to optimise production and reduce costs. I am sure that this factory will be really effective in producing the best air-quality technologies and developing complete solutions."

Aldes Middle East has also opened a showroom in the factory. This displays the systems made and distributed in Dubai. "We want our clients to be able to see our products in realistic situations," explains Audrey Leblé, Operational Communication and Marketing Manager. "We have even built a smoke extractor unit into the wall and fitted air diffusers and grilles in the ceiling." Even though it has only just opened, the showroom is already a great success with clients! ■

First Prize in China!



Every 5 years the Chinese Ministry of Construction commissions a nation-wide study by the CABR (China Academy of Building Research), to reward most innovative building project.

In 2010, under the 11th five-year plan, Aldes China, in collaboration with property developer China Resources Land was recognised under the heading of "Quality of life and environmental Improvement in the urban habitat."

"This prize was awarded for a residential block which we equipped in Shanghai (Oak Bay). It proves that the Chinese authorities are showing an increasing respect for the environment both indoors and out, and are concerned with user comfort." Victor Chonlanc, Director of Aldes China observes.

Bruno and Stanislas Lacroix, CEO and MD of Aldes, were in Shanghai on June 8th last year to receive this prestigious prize. ■

ENEO - ENR

Paris (FR)
15th to 18th February 2011
Stand 10C14

Climatizacion-es

Madrid (SP)
1st to 4th March 2011

Rénover

Lyon (FR)
11th to 13th March 2011
Stand C16-C18

Energy Show

Dublin (RI)
30th to 31st March 2011

**Capeb AG and
Journée
de la Construction**

Lyon (FR)
6th to 8th April 2011

Construmat

Barcelona (SP)
16th to 21st May 2011

Batimat

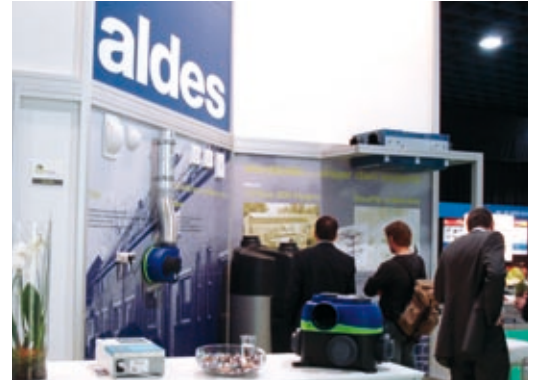
Paris (FR)
7th to 12th November 2011

Interclima

Paris (FR)
7th to 10th February 2012



Artibat – Nantes (FR) 1st to 3rd December 2010



VSK – Utrecht (NLD) from 1st to 5th February 2010



JNE Capeb – Dijon (FR) 29th to 30th September 2010



H'Expo – Strasbourg (FR) 28th to 30th September 2010



Mostra Convegno – Milan (ITA) 23rd to 27th March 2010



INTERCLIMA – Paris (FR) 9th to 12th February 2010

Please return to head quarter Aldes, 20 boulevard Joliot-Curie, 69694 Vénissieux Cedex, France, or fax: +33 478771527 or directly to your local contact.

Last name _____ First name _____ Company _____
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 Tel. _____ Fax _____ E-mail _____

I wish to receive the information regarding:

- Dee Fly - heat recovery ventilation – VC 100 556
- Twisted diffuser – VC 100 745
- DFE Compact - commercial heat recovery ventilation – VC 100 146
- C.Smaller - centralized vacuum system – VC 100 759

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2 FUNCTIONS**
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Domestic hot
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T.Flow is a revolutionary system.

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ECONOMICAL

- Up to 10% reduction in energy consumption for heating.
- Up to 75% saving on energy for water heating (DHW)**.

ECOLOGICAL

- Recovers heat from extracted air, an inexhaustible source of free energy.
- Limits greenhouse gas emissions.

SIMPLE TO INSTALL

- One system for 2 functions.
- A “plug & play” product.

* CMEV: continuous mechanical exhaust ventilation

** DHW: Domestic Hot Water

