

AIRLAN | COMFORT TECHNOLOGY | A COOL WHISPER



AIRLAN, S.A.

The smart choice in air conditioning equipment

 **AIRLAN**
AIR CONDITIONING



Our values ■

A history of effort, perseverance, enthusiasm, experience and innovation

AIRLAN S.A., began its business activity in 1989 with a set of values that were the foundation of its project and today continue to be developed and are the cornerstones on which the future is being built of a shared project in design, manufacturing and the marketing of air conditioning equipment.

The most comprehensive product range in the centralised water installations equipment market.

| COMMITMENT

We are committed to people. AIRLAN is a participatory project in which the intellectual development and satisfaction of people are most important. We are committed to giving our best, in order to meet the needs and solve the difficulties of our customers.

We are committed to energy efficiency. Including within our strategic objectives the recognition of energy savings and efficiency as an instrument for economic growth and social welfare.

We are committed to the environment. In all developments and production processes, implementing ECODSIGN in all the stages of the life of our products, with equipment that contributes towards a low and efficient use of energy and sustainable development.

COMMITMENT
INNOVATION
QUALITY
TRUST



We are committed to the outcome of the projects in which we participate. We are experts in what we do and we transfer this knowledge to the partners with whom we work.



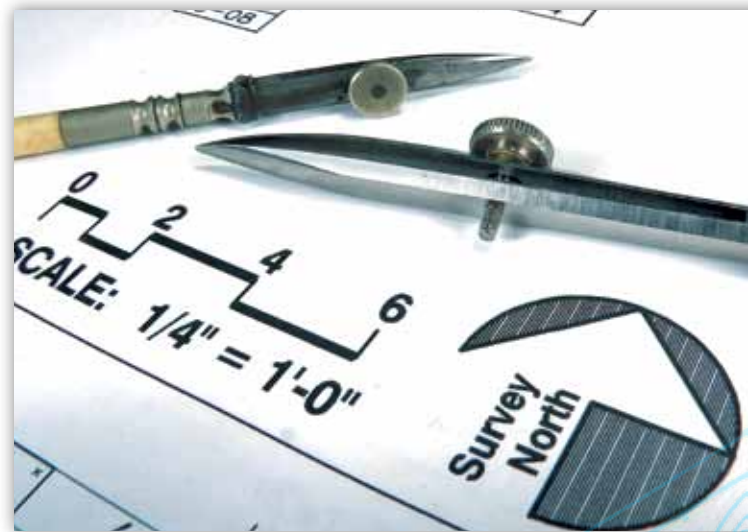


INNOVACION

We strive to contribute value to our customers and for us this is only possible from within a strategy of **equipment that is energy efficient** permanent innovation, both in products and in processes, applying technology to the design of and has an extremely low noise level.

The **Ecodesign** in the manufacturing of air conditioning units and the improving of our products, allows us to cut energy consumption during its use by 11.1% and reduce the environmental impact by 9.6%.

AIRLAN permanently maintains partnership agreements with Technology Centres for the joint undertaking of R&D projects, working on projects for phase changes, energy storage, absorption technology, etc.



COMMITMENT

INNOVATION

QUALITY

TRUST





Our values |

| QUALITY

We understand Quality in terms of its contribution to the value and satisfaction of our customers with regards to their expectations in working together with AIRLAN.

We understand Quality in terms of reliability, optimising the performance of our equipment units throughout their useful lives, through the technology and through the testing we perform on all the machines before they leave the factory.

We understand Quality in terms of **service, quick response, quality and the reliability of the products and our involvement** in the solving of problems.

We understand the Quality of our human team as the driving force of the company's consolidation and development, which is the result of the cohesion of efforts that are conducive to getting the very best from each person in the team.

As an additional guarantee of the truthfulness of the technical information disclosed in the technical documentation, all our equipment has the **EUROVENT certification**. The aim is to give the owners, the engineering firms, our technical engineers and the users the certainty that the declared technical features match what can be expected, and therefore independent laboratories verify the accuracy of the technical data shown.

COMMITMENT
INNOVATION
QUALITY
TRUST





| TRUST

We work to foster relationships of trust, contributing the best of ourselves so that it is worth working with AIRLAN.

- Knowledge
- Experience
- Technology
- Honesty
- Simplicity

AIRLAN contributes to the growth of the air conditioning market as it promotes the publication of the most current scientific and technical issues.

It is a very articulated activity, ranging from meetings with advisers, experts, owners, engineering firms, installers and maintenance services, up to the publication of specialised texts that are available on our Internet website, which is reference point for all parties to the business.

COMMITMENT
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Selection software

| Software for looking up the product documentation and selection, “MAGELLANO”

AIRLAN, with the aim of always providing a better service, has a software to look up the product documentation and selection.



Our **Magellano** software allows users to look up the technical manuals with the operating conditions of a specific piece of equipment or make a selection in a quick and agile manner.

Moreover, the automatic dimensioning of the model is available for each particular series. With this mode one can ask the program to select the unit that is as close as possible to the required operating conditions.





| “AIRSEL” software for selecting air conditioners.

Our **AIRSEL** selection software is an essential tool for the customised design of all the elements that make up the Air Handling Unit.

With a multitude of configurations available, the optimal choice of the different modules and accessories that make up the equipment unit, such as the cold and hot batteries, energy recovery units, filters, fans, silencers, sections for free-cooling, humidifiers,... becomes a quick, simple and user-friendly task.

All the technical data and the technical characteristic curves of the different components, are displayed at all times on the screen, thus facilitating the design of the Air Handling Unit that best suits the requirements of the installation.

Real-time design with the outside dimensions to scale and supporting technical data sheets in exportable format to be included with the air conditioning project documentation.





Production |

The incorporation of AERMEC into the capital structure of AIRLAN in 2005, has allowed us to manufacture the most comprehensive product range in the market of equipment for Centralised Water Installations, manufacturing the chiller and fan coils at the AERMEC factory in Italy and manufacturing the Air Handling Units at AIRLAN's factory in Spain, with a flexible production system in order to respond to the market demands in terms of reliability, competitiveness, quality and delivery times.

As the result of a policy of continuous investment in production technology and cutting edge machinery, we have a large manufacturing capacity. The overall manufacturing floor surface is 120,000 m², with an area for the robotic assembly of fan coils with capacity for 600,000 units/year.

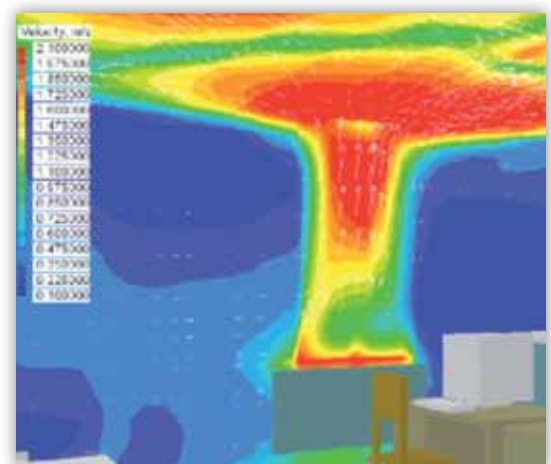




Testing chambers and laboratories

To perform the **operating testing** that is done on each piece of equipment under actual operating conditions before leaving the factory, we have laboratories that are comprised of 5 calorimetric chambers for equipment units of up to 800 kW (certified by EUROVENT), 1 semi-anechoic chamber, 1 wind tunnel and 1 radiating chamber that reproduces the different real-life conditions of a specimen room (office, home...).

These are complemented with 1 testing chamber for equipment units of up to 1.5MW and 5 testing chambers for equipment units of up to 700 kW located in the production area. Therefore, it is possible to simulate conditions other than those in the catalogue to know the performance features of the machines, have the results and attend said tests. All the equipment units have the **EUROVENT** certification.





Energy efficiency solutions ■

| Optimised choice of production equipment

Simulation of the behaviour of the production equipment (chillers and heat pumps) throughout the year, assuring detailed information on its behaviour under actual operating conditions and preparing a proposal, from among the multiple technological solution available in the portfolio, which optimises the **energy efficiency** of the installation.

| Multichiller supervision SYSTEM

The optimised running of a cooling station requires a system capable of managing the joint operation of refrigerating units, so that the overall efficiency of the system is optimised.

The **MULTICHILLER** supervision system, which is aware of the evolution of the performance of the units under different working conditions, determines the optimal start up sequence providing the utmost levels of energy efficiency for the overall installation.



| Monitoring of existing installations

The **DATAIR** monitoring equipment unit, registers the electric and thermal behaviour of the existing production equipment units (chillers / heat pumps) of the installation throughout the duration of a specified period of time. These data allow for auditing the actual performance of the equipment under actual operating conditions and base on which a proposal is prepared for the improvement of the production equipment units.





| Avant-garde Compression Systems

In its maximum efficiency equipment units Airlan includes the most avant-garde compression systems that are the latest on the market. The units are equipped with magnetic levitation compressors or screw inverter compressor that ensure the providing of optimal seasonal performance, the utmost modulation capacity at a high partial load, low starting current levels, as well as minimal noise levels.



| Efficient Free Cooling in chiller

The solution implemented in the water coolers allows the simultaneous use of Free Cooling and of the compression cycle, ensuring the full usage of Free Cooling that weather conditions allow.

| Smart recovery in ATUs

Specific software for the technical and economy analysis of the different recovery systems and the smart management design of the protocol for the different components of the air handling unit.

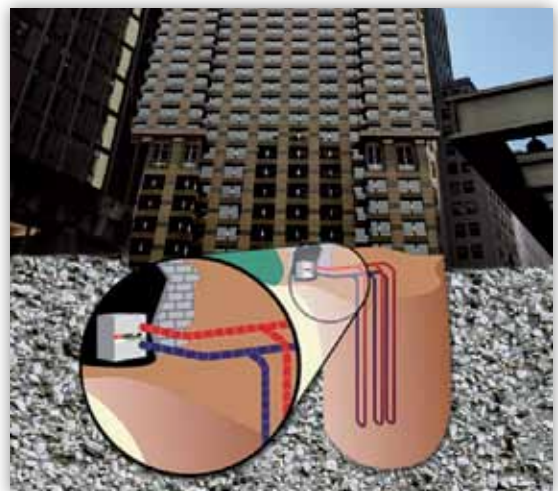
| High efficiency primary air handling units

High efficiency compact "Plug&Play" Air Handling Units, specifically designed for treating the outside air.

| Geothermal energy

Geothermal energy is a form of sustainable energy use with a present and a future as a high efficiency energy alternative vs. conventional systems.

AIRLAN has specific equipment units available for this application.





Technical and maintenance service

The satisfaction of AIRLAN's customers is guaranteed, not only by the product quality but also by the choice of the solution that best suits their needs.

The **Technical Assistance Network** provides support to the owner and/or maintenance service in supervising the operation of the equipment units throughout their life cycle, thus ensuring efficient operation over time.

For this, we have highly qualified staff with wide experience and proven effectiveness in solving any incidents that may arise.

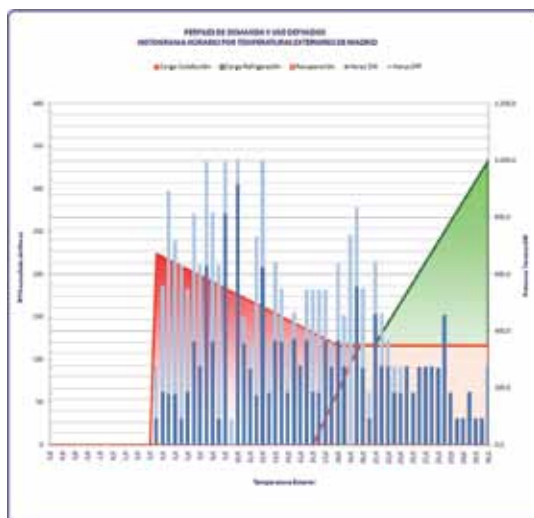
We have maintenance and operation protocols that are managed by our Technical Service Department, which guide the staff who manage the installation in performing the preventive maintenance tasks on the equipment (chillers / heat pumps).





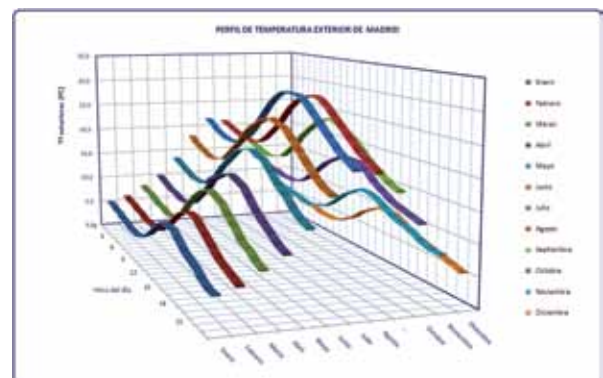
Is vitally important to have monitoring and remote management systems that provide a real-time intercommunication between the equipment units and the Technical Assistance Service.

Our **Expertview** is an adjustment and control system for buildings based on open and scalable software architecture that facilitates connection to any automation and control subsystem. It allows the storage of the equipment's different usage parameters in a historical database.



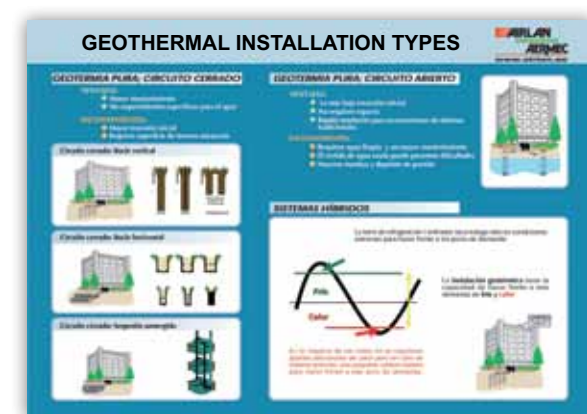
Its technical features are:

- .: Utmost reliability in newly installed equipment units
- .: Continuity of service of the installation due to the absence of malfunctions or technical maintenance stoppages.
- .: Reduction of the expenditure for repairs, unscheduled stops and the labour costs of the Technical Assistance Service.
- .: Pre-empting breakdowns. Availability of spare parts.
- .: Increase in the useful life of the equipment, increase in efficiency, reliability and trust.
- .: Modern technology. Equipment with state-of-the-art current technology.





| GEOTHERMIA | WATER CONDENSATION CHILLERS AND HEAT PUMPS



High efficiency units. Scroll and screw compressors.



Chillers with magnetic levitation centrifuge compressor.



Sustainable energy use with specific units for geothermal applications of up to 1,600 kW.



Prioritisation of the ACS and hot water production up to 60°C. Anti-legionella cycle.



Autonomous equipment units for geothermal loops, well water, condensation rings.



| WATER CONDENSATION CHILLERS AND HEAT PUMPS



Low and medium power chillers and heat pumps with inverter technology. Integrated hydronic modules.



High efficiency chillers and low noise level, up to 1,600 kW refrigeration.

Partial and complete recovery. Scroll, screw and magnetic levitation centrifuge compressors.



Heat pumps with smart defrost, up to 800 kW thermal, optimised for operation in winter.



Chillers fitted for simultaneous operation of Free Cooling and compression cycle.

Complete use of the free cooling potential, maximising performance in intermediate seasons.



Heat pumps with centrifuge fans for installation indoors.



Multise units (4 cycles) for the simultaneous production of cold, heat and ACS. Specific solutions for 2 and 4-pipe installations.



| AIR HANDLING AND RECOVERY UNITS

Air handling units with a wide range of flow volumes (up to 100,000 m³/hr).

Configurations customised to suit the customers requirements, designed with the assistance of our comprehensive, versatile and user-friendly software program.

The equipment units have been designed using Ecodesign tools and have the EUROVENT certification.



Air conditioning units with embedded power and control panels.



High-efficiency Autonomous Equipment units including a cooling circuit.

| Patented hygienic solutions

Installation specifically developed for use in hospitals and food, chemicals and pharmaceutical industries.

All the components can be accessed by means of rails to allow for easy maintenance.

All the sections can be fitted with stainless steel condensates trays with central drainage.



Recovery units in accordance with current legislation and availability of added cooling circuit.



| FANCOILS Y CASSETTES



| INVERTER ventilation technology

Thanks to inverter technology, the equipment continuously monitors the air volume flow, adjusting it at each instant, to the actual needs of the room to be cooled or heated. This leads to great benefits in all that refers to electricity savings, comfort and a low noise level, as compared with a traditional 3-speed on-off fancoil.

| Centralised management (VMF): Communicating Control Devices (MODBUS)

Centralised management system of a hydronic installation integrated in a distributed control of all its components. Allows for individual control by equipment unit or by areas in the building of the indoor air temperature and quality conditions, maximising the energy efficiency of the assembly. The system can be fully communicated with BMS systems.

| Ecodesign at the service of comfort

The equipment units have been designed using Ecodesign tools, favouring respect for the environment.

| Hygienic Fan Coils



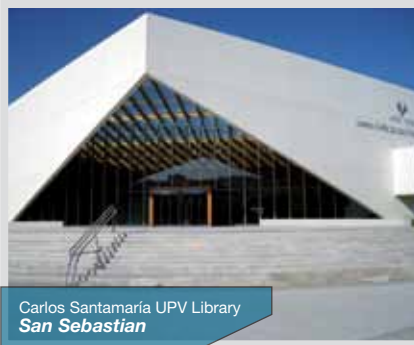
Fan coils fitted with an exclusive device for the sterilisation and ionization of the air that make it essential in atmospheres that require the utmost degree of hygiene.

| Design and comfort

Modern lines that follow the styles of current interior design.



References |



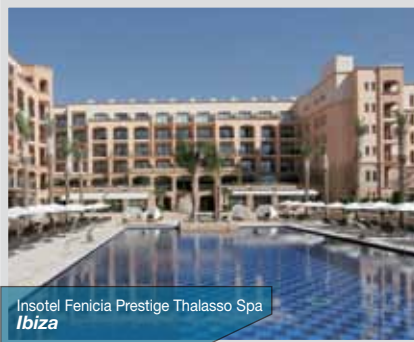
Carlos Santamaria UPV Library
San Sebastian



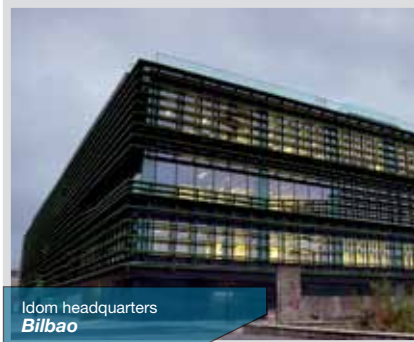
Monte Principe Building
Madrid



Iguzzini Central Headquarters
Barcelona



Insotel Fenicia Prestige Thalasso Spa
Ibiza



Idom headquarters
Bilbao



Jumeirah Port Soller Hotel & Spa
Palma, Majorca



Picasso Tower
Madrid



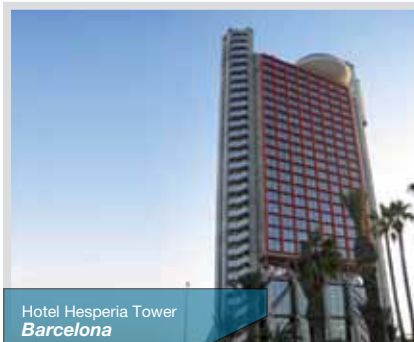
Gran Meliá Palacio de Isora Hotel
Tenerife



LKS headquarters
Mondragón



IMQ Hospital
Bilbao



Hotel Hesperia Tower
Barcelona



Judicial Headquarters
Las Palmas



Marinada City Mall
Corunna

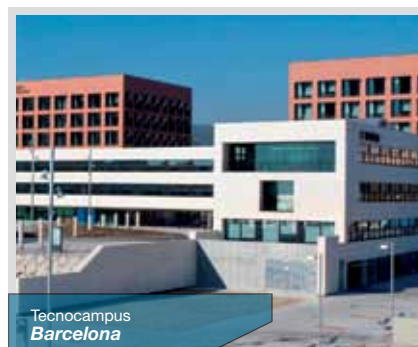
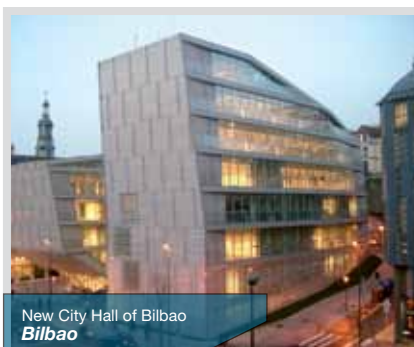
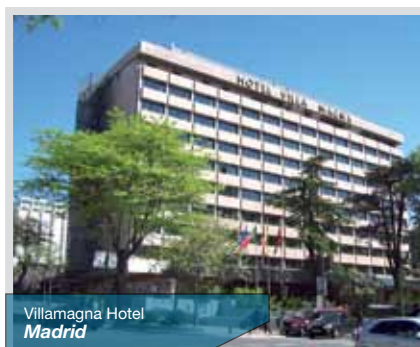
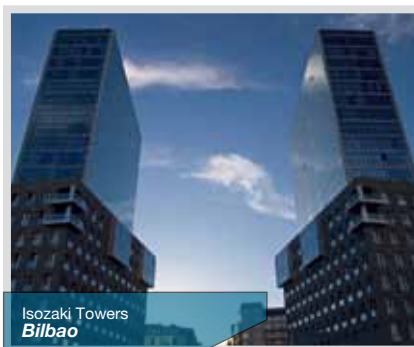
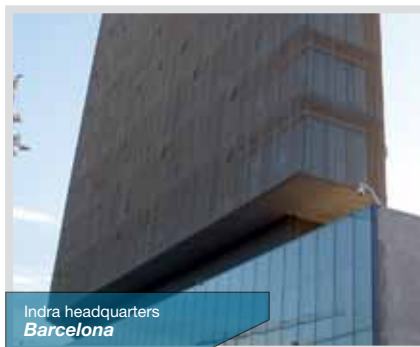


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