

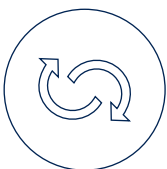
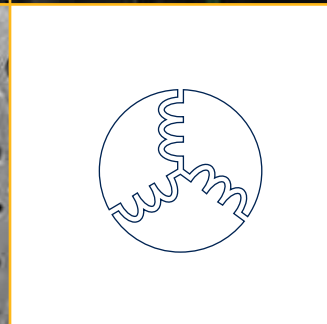
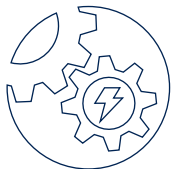
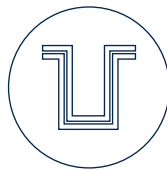
GROUP

**aquacENTER** water, energy & environment


**elèctricaPINTÓ**

ELECTRO HYDRAULIC FACILITIES

EXPERIENCE,  
EFFICIENCY &  
INNOVATION







**"We can change the world and make it a better place. It is in your hands to make a difference."**

**Nelson Mandela  
(1918 - 2013)**

# Experience Efficiency & Innovation

Professional, effective and creative solutions to our customer's problems.



## INTRODUCTION

**Elèctrica Pintó** began its works early in the 70s assembling electro hydraulic pumps. The enterprise belongs to the group Aquacenter since its beginnings, developing projects related to the world of water and energy. We always opt for innovation, efficiency and continue providing services of the highest quality, so that we always gain our costumer's trust. A high level of involvement before, during and after the work, a continued maintenance of the facilities, a rapid response to any incident: the experience and success behind us all these years makes that every day more and more companies rely on our services.

Elèctrica Pintó has got a consulting service able to analyze needs, define solutions and give advice: a service that prepares and executes engineering projects, budgets, systems integration, etc. Furthermore, a maintenance service offers preventive maintenance, fault repairs, online remote assistance, etc. A department that includes remote monitoring and control systems for drinking water and wastewater networks , new departments specialized in renewable energy, preventive maintenance... and we have increased services in catchment facilities, water treatment and distribution facilities, wells , remote control and engineering.

Elèctrica Pintó owns a large fleet of vehicles for the execution of works, such as tow trucks, excavation machinery, lorries ... and a large stock of specialized electronic equipment and machinery.

GROUP

**aquacENTER** water, energy & environment



## MISSION

To leverage the synergies yielded by the collaborative union of our companies in order to develop and provide new solutions focused on energy efficiency and sustainable exploitation of natural resources.

## VISION

To become a global leader in development and application of environmental engineering solutions leading to world community progress and sustainable economy.

## VALUES

### COMMITMENT

All of our resources and efforts are exclusively used to accomplish the goals and obligations signed with our clients. Our main target is to fulfil and surpass our customers' initial expectations.

### CLOSENESS

We like to deal with our clients face-to-face, listen and understand their needs as well as take their advice and feedback into account.

### SUSTAINABILITY

We strongly stand for the economy for the common good movement and work to make this world a better place to live in from an environmental friendly approach.

### INTERNATIONAL

There are no borders for us at all, only the people who live on Earth and the projects leading to improving their standard of living.

### ENTREPRENEURSHIP

We like to take a step forward, to be proactive and take the initiative. We do not fear new challenges and face every new project with determination.

-  WATER TREATMENT
-  WELLING
-  REMOTE CONTROL
-  RENEWABLE ENERGIES
-  ELECTRICAL WINDING
-  ELECTRO-MECHANICAL WORKSHOP
-  INDUSTRIAL COOLING & AIR CONDITIONING

We work to offer  
environment-friendly solutions.



## Group AQUACENTER

The Aquacenter Holding Group was founded in 1996 due to the union of six companies: Catalana de Perforacions SA, Elèctrica Pintó SL, Clorep (Elèctrica Pintó division), Domini Ambiental SL, Webdom Labs SL, Gestió Solar Sostenible SL and Comelsa SL.

With its head office based in Santpedor (Barcelona, Spain) and more than a hundred employees, the Aquacenter companies have a global orientation and provide with products and services to public administrations, private companies and individuals. All the six societies on the group own a high technologic level and they target their activity to the hydraulic and energy sector, while each one of them do that on its own speciality.



Facilities in Santpedor (Barcelona)



Catalana de Perforacions SA founded in 1968 as a company focused on water-well drilling. It has been researching and developing the most pioneering techniques within its industry as well as specialising in high-difficulty works till becoming a worldwide referent in terms of sustainable exploitation of water and natural resources.  
<http://www.catalanadeporacions.com>



Elèctrica Pintó SL starts their activity in 1974 with electro-hydraulic pump assembly; up to now the company has developed many projects related to water and energy field. Elèctrica Pintó has always pulled for the innovation and efficiency when executing the jobs; it provides a service aimed at continuous improvement with a high level of implication before, during and after the completion of the works, a continuous maintenance of the installations, a quick response to unexpected events, the experience and success along these years guarantee their professionalism.  
<http://www.electricapinto.com>



clorEP is a division specialized in the application of technologies for water disinfection, dosage and treatment in the corporate structure by Elèctrica Pintó.  
<http://www.clorEP.es>



Comelsa is a company specialized in mechanic-electrical constructions from 1985. It focuses its activities in offering services regarding engines repair and windings, alternators and electrical transformers. It is specialized in industrial refrigeration and air conditioning installations, offering maintenance and after-sales service. It has also a large workshop for electro-mechanical repairs.



Domini Ambiental has an exceptional position within the water and renewable energies industry, key factors for the future energy management. Founded in 2002 in Santpedor (Barcelona) and having a clear environmental orientation. Exclusive distribution of the best international brands and the great technical training are the basis on its contribution.  
<http://www.dominiam biental.com>



Webdom Labs was founded in 2011 and manufactures monitoring systems (software and hardware) for the control of photovoltaic plants, thermal production and consumption of electricity, water and/or gas. Our products allow measuring and controlling energy consumption and contribute to energy saving.  
<http://www.webdom.es>



#### **GESTIÓ SOLAR SOSTENIBLE**

Founded in 2005 in Santpedor (Barcelona) and committed to designing, building, exploiting and maintaining solar farms. Besides, provides an extensive array of auxiliary services to make those facilities supply electricity continuously and efficiently.

## GROUP

# aquaCENTER

## water, energy & environment

## Facilities and staff

The ability to develop technical solutions adapted to the customer's needs is one of the added values of Elèctrica Pintó which have made the company one of the leaders in the sector.

Elèctrica Pintó highlights for its experience and high specialized level of its staff, of more than 40 professionals, among there are technicians, electricians, boilermakers, mechanicals, bricklayers, engineers, programmers...

Our facilities have technical and administrative offices, electrical workshop, mechanical and boiler workshop, mechanical workshop, laboratory tests and warehouse stock.

At Elèctrica Pintó we have at your disposal a wide range of vehicles intended to the execution of jobs, such a truck crane, digging machinery, vans... and a wide specialized electronic equipment and machinery stock.



Product showroom



Workshop repairs



Qualified personnel



Warehouse store





## Innovation, quality and environment

Elèctrica Pintó has a clear sense of innovation to become more efficient and competitive. Moreover, the company has taken on an important commitment in quality and prevention of risks in the workplace. As part of this commitment, we have both ISO 9001 Quality Management and OHSAS 18001 Risk Prevention in the workplace Certificates.



As a company, we understand the requirement to reduce our impact to the environment, as well as our customers'.

The provided technologies supply the most innovating solutions to our client's problems, and also they are environmentally friendly to ensure natural resources sustainability.





## ACTIVITIES & SERVICES

### ■ WATER TREATMENT AND DISTRIBUTION

High-level technical solutions in all type of pumping installations, potable and sewage water network, water treatment and distribution. - [Page 12](#)

### ■ CHLORINATION SYSTEMS

We offer different solutions regarding disinfection, dosage, water treatment by means of new emerging technologies in water treatment and management. - [Page 14](#)

### ■ WATER SUPPLIES

Services in the water integral management: intake, dirty water storage, treatment, reclaimed water storage and distribution network. - [Page 18](#)

### ■ WELL EQUIPMENT

Experts in drillings for groundwater intake, pumping equipments installations, well gauging, cleaning and wells recovering. - [Page 20](#)

### ■ WELL GAUGING

We make researches to know the optimal exploitation, both in new drillings and also in old wells recovering. - [Page 22](#)

### ■ SWITCHBOARDS AND AUTOMATION

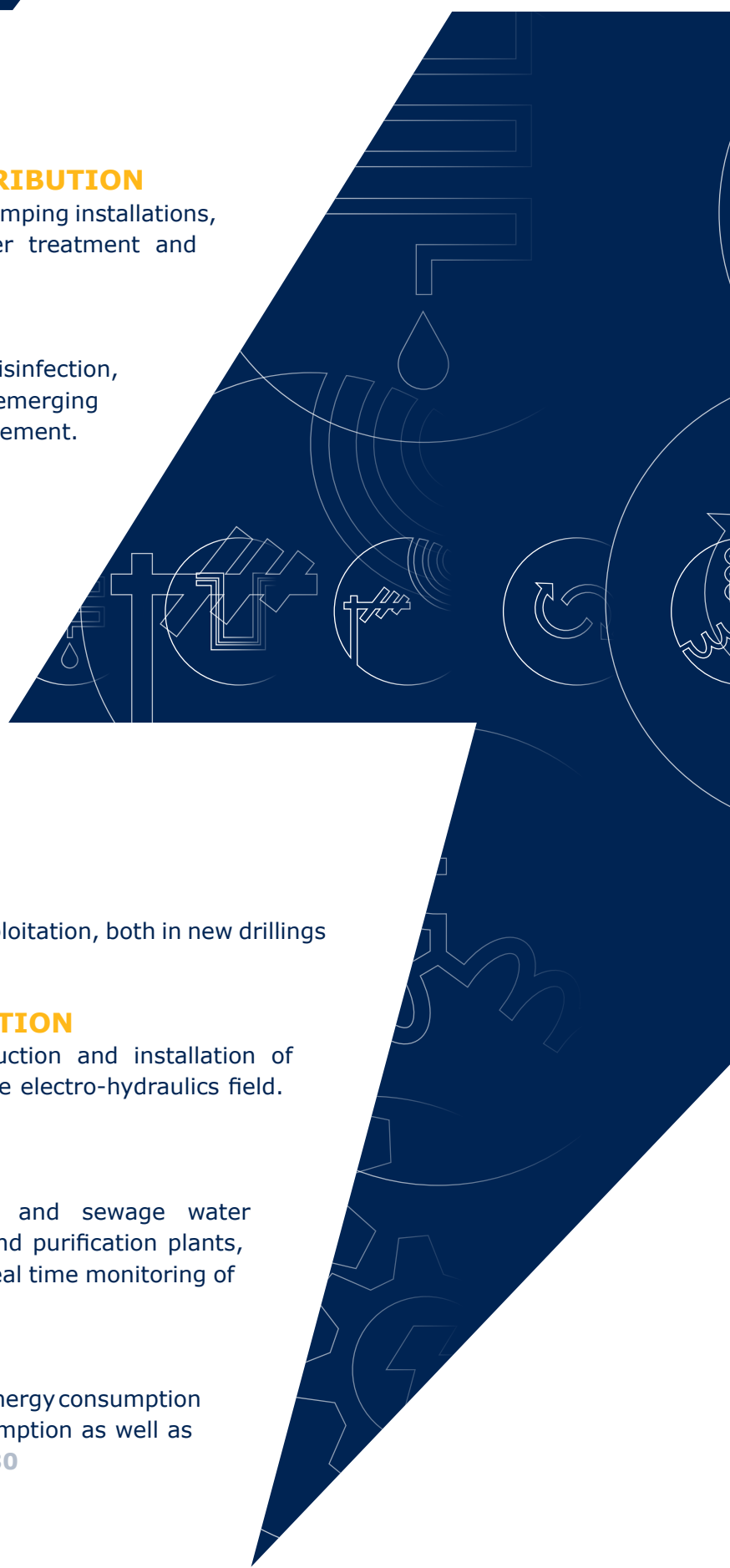
We are specialized in the design, construction and installation of electrical panels for many applications in the electro-hydraulics field. - [Page 26](#)

### ■ REMOTE CONTROL

Management systems regarding potable and sewage water network, installations in water treatment and purification plants, etc... via radio, GSM / GPRS and Ethernet. Real time monitoring of the installations conditions. - [Page 28](#)

### ■ ENERGY MONITORING

Monitoring systems of industrial or domestic energy consumption allow verifying real time total energy consumption as well as daily, weekly and monthly costing. - [Page 30](#)







## ■ ENERGY CONTROL: ENERGY AUDITS, CONTROL & ENERGY EFFICIENCY

We offer energy monitoring and audits and we optimize the energy efficiency due to the constant increase of the electrical energy cost and new invoices penalization, which makes more necessary the optimization of its installation.

- Page 34

## ■ RENEWABLE ENERGIES

We design and execute all kind of installations regarding photovoltaic and thermal solar energy, windy energy, geothermal and biomass. - Page 38

## ■ STREET LIGHTING

Lighting of roads, cities, fountains, monuments or facades by means of a group of elements such as glass bells and searchlights, depending on the place they are put, desired lighted intensity, and environment among others. - Page 52

## ■ ELECTRICAL WINDING

From 1895 we have become experts in electrical motors winding and reparation, alternators and transformers reparation. Our experience in this field speaks on our behalf in providing the best solution and service. - Page 56

## ■ PUMP REPAIR

Submersible and surface electro-pumps reparation carried out in a specialized workshop, by offering the consumption and flow verification in test bed. - Page 60

## ■ ASSEMBLING WORKS

We are expert in boiler works, design and manifold production made by all kind of materials: stainless and galvanized steel, polyethylene, etc. We make both domestic and industrial installations assembly. - Page 62

## ■ ELECTRO-MECHANICAL WORKSHOP

We have a large workshop focused to all kind of electro-mechanical reparations as well as the required tools and know-how. - Page 64

## ■ INSTALLATION AND MAINTENANCE FACILITIES

Revisions with efficient pre-emptive maintenance service adapted to all customers. - Page 66

## ■ INDUSTRIAL COOLING & AIR CONDITIONING

We are specialists in industrial refrigeration and air conditioning systems in both industrial and domestic areas. - Page 70



"Water is the element and  
the principle of all things."

Thales of Miletus

# WATER TREATMENT AND DISTRIBUTION CHLORINATION SYSTEMS





## WATER TREATMENT AND DISTRIBUTION



The Department of electro hydraulic has a wide range of services for the treatment and distribution of water. Pumping from wells, tanks and distribution lines intended to bring drinking water to any point on the map. Facilities for the treatment of water for domestic purposes as well as for treatment plants, chlorination systems, filters. etc.

In addition, we are specialized in pumping stations and sewage treatment. Moreover, Elèctrica Pintó has made a large number of orders in specialized facilities for fish farms, sea water pumping, golf courses, reservoirs, swimming pools...

## Drinking water

Automation and installation of pumping stations with stainless steel pipes to ensure a long life for the installation and minimize its maintenance. We offer a variety of pumping systems providing solutions in both municipal water supplies in irrigation industries and domestic areas.

Global solutions for water treatment. Softening and filtration systems, chlorination, calcium hypochlorite, sodium hypochlorite generation "in situ" by electro-chlorination, etc. Monitoring network analyzers for chlorine, ammonia, nitrate, pH, turbidity, etc. for a thorough quality control.

Construction of water treatment plants, automation and plant control. Treatment and purification stations.



## Wastewater

Coming from public sewers, septic tanks ...

- Pumping
- Pumping Stations
- WWTP's





## CHLORINATION SYSTEMS



It is a company specialized in water treatment, with the aim of satisfying the requirements of a large range of activities in new technologies applications in our hydrological resources management and treatment.

Elèctrica Pintó develops this activity through the new "clorEP®" division, specialized in the application of technologies for the water disinfection and dosage by means of chlorine and byproducts.

The main technologies used are: chlorine-gas dosage, "in-situ" chlorine dioxide generation, electro-chlorination and ammonia dosage.



## Disinfection systems and water treatment

We offer several solutions to water disinfection using calcium hypochlorite tablets without tension and we also generate sodium hypochlorite generation "on site" from salt.

Run facilities for water treatment in small and large tanks, sewage treatment plants and the use of instrumentation such as chlorine analyzers, pH, turbidity, ammonium, nitrate, sand filters, UV equipment, etc.






"What makes the desert beautiful,  
is that somewhere it hides a well."

Antoine de Saint-Exupéry



**WATER SUPPLIES**   
**WELL EQUIPMENT**   
**WELL GAUGING** 





Elèctrica Pintó offers services in integrated water management, maintenance and execution of installation facilities.





## The components of a water supply system consists of five parts:

**Sourcing:** it can be made from a spring, surface water or from underground wells or filter galleries.

**Storage of dirty water:** when the necessary water source has a sufficient volume to supply the necessary amount of water.

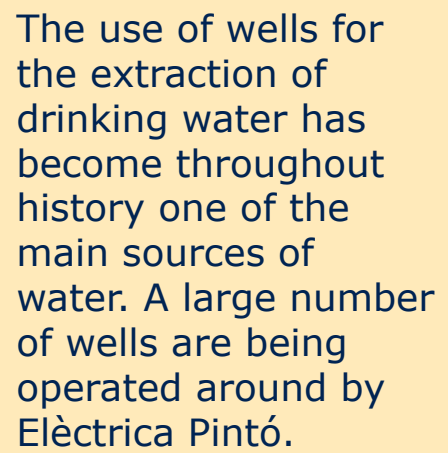
**Treatment:** treating water to make it potable can be very different depending on the quality of water to be treated.

**Storage of treated water:** serves to compensate for variations in the hourly consumption and the storage volume of strategic emergency situations.

**Distribution network:** it begins in the treated water tank and ends at the home user's system. It consists of pumping stations, main and secondary pipes, valves, sensors, meters, etc.









## Well equipment

Specialists in the field of water, we offer solutions and adapt them to the needs of each customer.

We install submersible pumps suitable for each of the technical features of each well, and the discharge pipe, valves, sensors, measuring devices and all electrical control and automated to control both manually and automatically, either "on site" or remotely via remote control.

Elèctrica Pintó provides full "turnkey" solutions.





## WELL GAUGING



Pumping equipment able to take up to 380 m<sup>3</sup>/h to a depth of 450 meters.

Monitoring and control of water levels in the well and flow extraction electromagnetic flowmeter and pressure transducer.





Gauging wells, aimed at optimum operating out about are basic and further wells when recovering an old well.

We are also specialized in the installation of pumping equipment, submersible pumps, pipes, manifolds, automation, etc... to evacuate water from the depth needed. Cleaning and recovery wells to larger inputs of water are also possible with HCl injection systems, compressed air and Venturi.

Procedure includes a graphical representation of the evolution decreases over time for several working flows. This representation is made both in semi logarithmic graphics, representing the values of the time in a logarithmic axis. This graph allows us to observe the behavior of the well due to water extraction. Another interesting graph that represents the relationship is specific volume - reduction. In this graph we can "read" the reductions achieved and their relationship.

## WELL GAUGING

To find the optimal operation of the well:

- Installation and monitoring of capacity.
- Gauging results.
- Geological reports.

## CLEANING AND RECOVERY WELLS

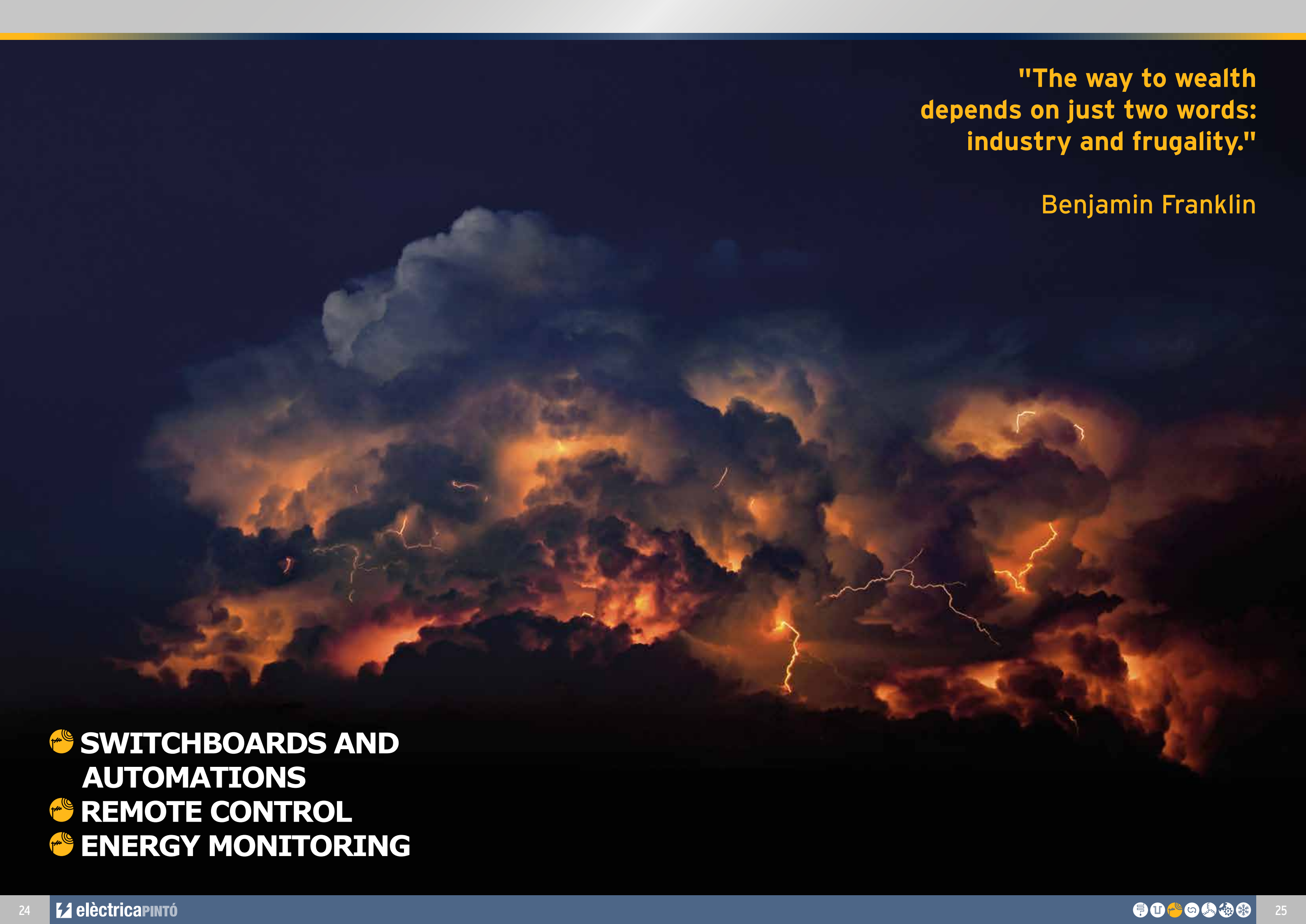



To improve the performance of the well:

- Injection of HCl.
- Cleaning with compressed air and Venturi.



**"The way to wealth  
depends on just two words:  
industry and frugality."**

**Benjamin Franklin**

- 
-  **SWITCHBOARDS AND  
AUTOMATIONS**
  -  **REMOTE CONTROL**
  -  **ENERGY MONITORING**





Elèctrica Pintó is specialized in the design, construction and installation of electrical panels for a wide range of applications in the world of electro-hydraulic.



## A world of innovative and efficient solutions

Our experience and knowledge as an installation company allows us to provide value-added finished products and customized solutions:

- Design and production of electrical panels (home, buildings and industrial).
- Integration with electrical systems and applications with renewable energy, hydraulic, automation and automatic reactive compensation equipment.
- Hydraulic engineering, pumping equipment, sanitation, disposal of sewage and rainwater pumping for agricultural applications or any domestic or industrial facilities, wells, DWTP, WWTP, using variable frequency static starters, switchgear and protection devices and components, all of them top quality and complying with applicable regulations.
- Interior and exterior lighting applications.
- Switchboards protection and control related technical installation photovoltaic, thermal, geothermal, biomass, wind, etc.





## REMOTE CONTROL



Remote monitoring and controlling networks of drinking water supplies in high sewage and water treatment plants, irrigation systems, control of local, remote point to point, SCADA, etc. Radio communication, GSM, GPRS and Ethernet.

Monitoring the conditions of the facilities in real time via WWW.



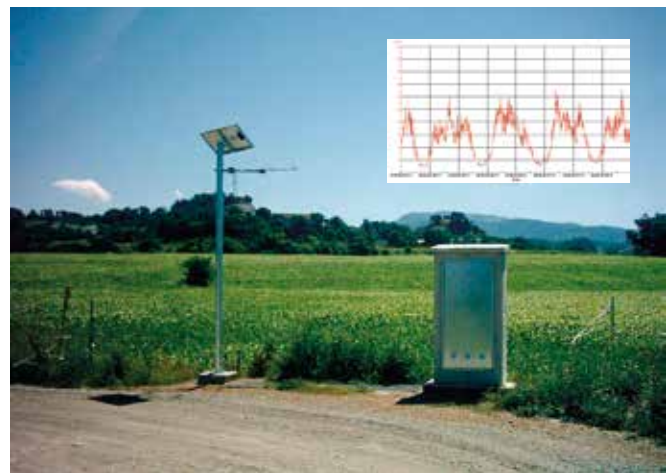
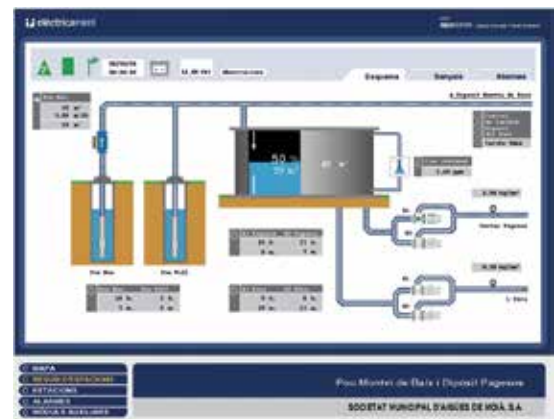




Monitoring systems and control of both water and wastewater networks and equipment in real time process data.

Systems that send SMS alarms and emails with SCADA systems control. Data recording and reporting through Smartphone's, tablets, PCs, etc...

Customized solutions for each costumer.





## ENERGY MONITORING



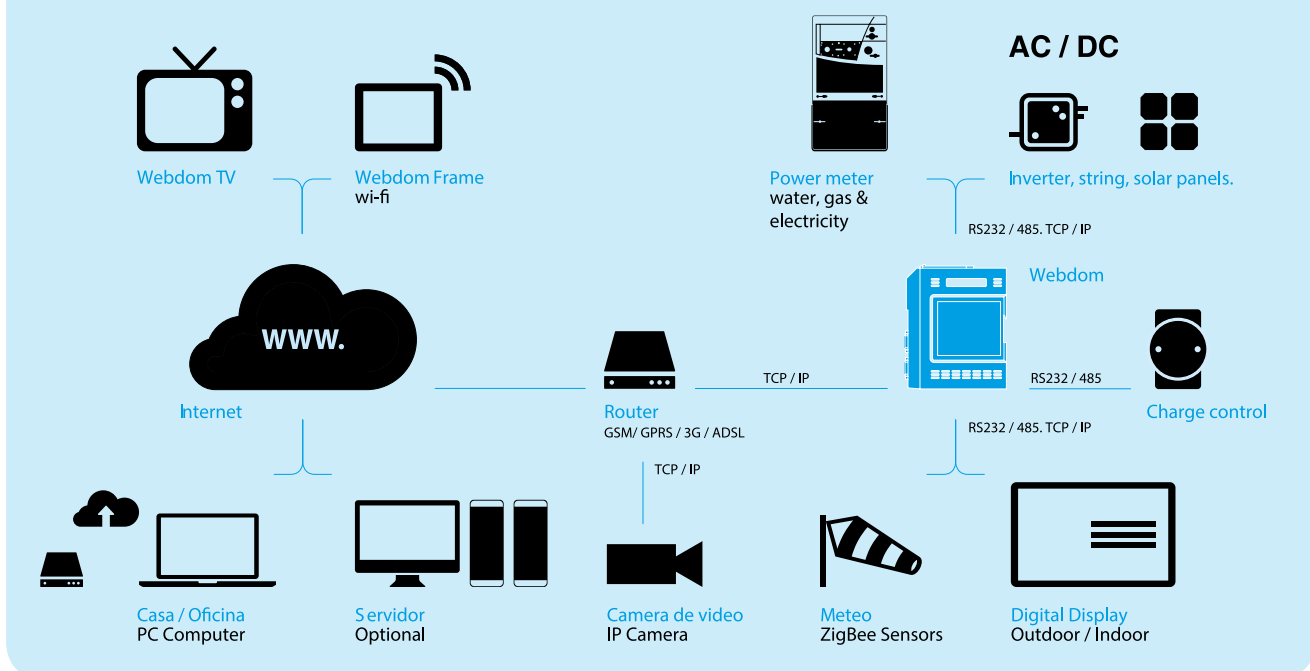
Using a system for monitoring energy consumption in industrial or domestic, you can verify in real time the total energy consumption and daily, weekly or monthly costs. This allows reporting production, consumption patterns, export data, historical comparisons and generation of SMS and email alerts.



**webdom**  
Renewals under control



## WEBDOM OVERALL SYSTEM APPLICATION



Webdom Monitoring System is a complete solution that allows you to add more applications to manage and visualize the energy consumption of water, gas and electricity by direct connection of the meter. Another application is the remote activation and disactivation, either manually or automatically of points of consumption such as lighting, air conditioning, heating, peripheral sensors, etc, at the same time that we see temperature sensors, humidity, pressure, etc...

## CUSTOMIZATION Monitoring system



### APPLICATION SAMPLE

1. Client name.
2. Current time, date & adress.
3. Space for company's digital content
  - a. Corporate video.
  - b. Featured images.
  - c. Information of interest.
  - d. Social media links.
4. Data instant consumption.
5. Consumption evolution.
6. Metereological data:
  - a. Indoor Parameters.
  - b. Outdoor Parameters.
7. Company or institution logo.
8. Company's colours Customization.



The energy consumption control is one of the keys to improve the energy efficiency. And we cannot have any control without any data. Webdom system enables collecting, processing and showing real time data about consumption. The concept, initially developed to manage the photovoltaic installation production, is currently applicable to public buildings, industries, shops or our homes.

"We do not inherit the Earth from our  
ancestors; we borrow it from our children."

Native American Quote

- ENERGY AUDITS 5
- ENERGY EFFICIENCY 5
- PHOTOVOLTAIC SOLAR ENERGY 5
- OWN CONSUMPTION 5
- SOLAR THERMAL ENERGY 5
- GEO THERMY 5
- AERO THERMY 5
- BIOMASS 5
- SMALL WIND POWER 5
- STREET LIGHTING 5



## ENERGY AUDITS



Elèctrica Pintó conducts energy audits and diagnostics, at the request of the customer or in those places where the frequency of incidents is significant.

### EXPECTATIONS

#### RATING

CURRENT STAGE  
ANALYSIS

OPTIMUM STAGE  
DEFINITION

IMPROVEMENT  
PROPOSALS



An energy audit is a systematic process to obtain adequate knowledge of the existing energy consumption profile of a building or group of buildings, a facility or industrial or commercial operation or a public or private service, and to determine and quantify the potential energy savings to report thereon.

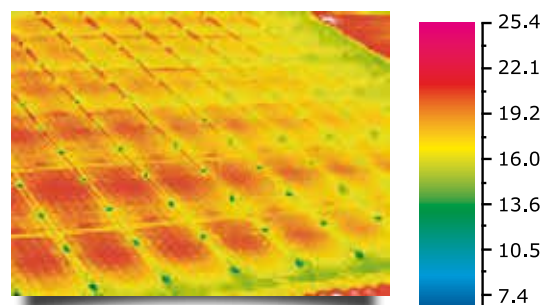
Process compares current energy scenario with a good scenario, in order to identify the distinctive features and make suggestions for improvement to reduce the consumption of feasible form.

**The end result will be a report with findings and recommendations involving:**

**Process:** through a detailed study of the processes, as well as the variables of operation (operating cycle, demand ...), a relation between the operating system and associated consumption in search of greater energy efficiency.

**Habits:** a source of savings comes immediately to assess the personal habits of the company in relation to the use of machines, computers, air conditioning, etc.. Proposed corrective actions and habits assessed its impact on economic and environmental level.

**Investments:** we evaluated a number of investments and other assets that allow devices to obtain energy savings, determining the simple payback period of the investment.



The Energy Audit service provides:

- Analysis of the energy situation, determining as accurately as possible the actual consumption of energy and efficiency. Overall energy balance of the equipment and facilities with power consumption.
- Identify areas of opportunity that offer potential energy savings. Establishing and valuing the volume of savings achievable and technically feasible measures to achieve it.
- Analyze the cost-benefit relationship of the various opportunities within the context of financial management, in order to prioritize their implementation.
- Conduct an assessment of the possibility of integrating renewable energy facilities or alternative facilities.
- Study the optimal parameters contracting energy supplies.
- Analysis of power quality (surges, harmonics, notches, etc.).
- The activities require energy specialized staff from Elèctrica Pintó, in order to understand the processes involved and perform data acquisition.



## ENERGY EFFICIENCY



Increasing efficiency means improving our quality of life, allowing us to maintain or increase comfort with less energy consumption.

Saving energy and using it in an efficient and intelligent way is our purpose, and using renewable energy as a common and clean good is one of the best ways to achieve it.



Energy certification has become in the coming years a fundamental tool of information for users about the energy consumption of buildings and homes, as well as an instrument of market efficiency when deciding to rent or buy a home and, therefore, a value.

The sustainable use of energy resources is a major challenge because of the states, and since the buildings are a major consumer of energy, a future state policy priorities will be held in this sector.



## How much a building consume?

The research *Análisis del consumo energético del sector residencial en España* (Analysis of Energy consumption in the residential area in Spain) made by IDAE to know and analyze the consumption of more than 17 millions of Spanish homes, shows that the domestic area consumes the 17% of the sum final energy and 25% of the electricity. The heating is the most consumed service and the electrical appliances are the ones which require more electrical power. This research has analyzed globally the consumptions for usages, energy resources and domestic equipment features, in three climatic areas in the country. It has been promoted and financed (50%) by Eurostat, CE statistics agency, to design and systematize a methodology, and it has measured real time electrical consumption, including standby. The research has enabled determining that the isolated single family home doubles the consumption of a traditional home; the standby consumption is higher than refrigerator's. The television is the second electrical appliance after the refrigerator regarding electrical consumption. The centralized heating and ACS services consume 22% less than the single ones, among other data available.

For more information, please visit:  
[http://www.idae.es/uploads/documentos/documentos\\_Informe\\_SPAGHOUSESEC\\_ACC\\_f68291a3.pdf](http://www.idae.es/uploads/documentos/documentos_Informe_SPAGHOUSESEC_ACC_f68291a3.pdf)

## Buildings certification

Buildings consume about a third of total final energy in the European Union.

In many countries, the majority of homes have no proper insulation. These figures give an idea of the potential energy savings that this sector in the long term if implemented efficiency measures and reducing consumption.



The certification of energy efficiency of buildings directive 2010/31/UE defined by the European Union aimed specifically at reducing the consumption of new buildings until the buildings with almost zero energy consumption.



## PHOTOVOLTAIC SOLAR ENERGY



We carry out all types of facilities photovoltaic and their maintenance, either independent or connected to the mains, from design through implementation, to its maintenance.

Our extensive expertise and experience in the world of renewable energy support us to adapt to the needs and expectations of the customer.







## NETWORK CONNECTION

A photovoltaic installation connected to the grid is based on the concept that the owner produces electricity that is sold to the electric co. The energy generated by the photovoltaic modules is fully injected to the grid, and it is locally generated where the consumption takes place.



## SOLAR TRACKER

We are pioneers in solar thermal trackers, photovoltaic and hybrid to combine solar thermal and photovoltaic panels to supply electricity and heat independently, approaching the self sufficient energy system. Our items are a good investment for the future and respect of the environment.







### OWN SOLAR CONSUMPTION

#### THE WAY TO ENERGY INDEPENDENCE

*Would you like to save up to 60% on your electricity bill?*

The energy produced by the panels is injected directly into the internal network of the building and the excess can lead to the distribution network.

The relationship between the steady increase in the cost of electricity and improving the efficiency and decrease the price of solar panels makes solar installations are a great solution for significant savings in the bill electricity.

Elèctrica Pintó designs and delivers facilities adapted to the needs of each customer, such as domestic own consumption installations or large industrial installations.

Due to photovoltaic installations, our customers become producers of their own energy consumption and the remaining surplus is injected directly into the network.

**OWN CONSUMPTION**  
WAY TO ENERGY  
INDEPENDENCE



### Domestic own consumption



### Industrial own consumption



### ELEMENTS OF INSTALLATION



Inverters



Photovoltaic  
Panels



Structure



Team commu-  
nication



Erection  
and com-  
missioning

### Significant advantages:

- Savings in electricity bills and CO2 emissions.
- 100% clean energy, a renewable source of energy use and pollution.
- Energy Independence.
- Easy installation, scalable and low maintenance.
- Income producing solar panels for 25 years guarantee.





The low-temperature solar thermal technology is widespread, both for domestic and industrial trials, domestic hot water heating, swimming pool heating, etc. The sun's energy is captured by means of sensors, which are classified as:

- Polypropylene collectors for heating swimming pools in summer



- Flat plate collectors



- Vacuum tubes collectors (with the heat-pipe or direct flow system)





## TRACKER SOLAR THERMAL

54 sqm with a thermal power of 40 kW and reaching temperatures up to 120 °C.

Applications: Industrial processes: car washing, bottling plants...

ACS: Hotels, restaurants, schools, district heating.

HVAC: heating, solar cooling...

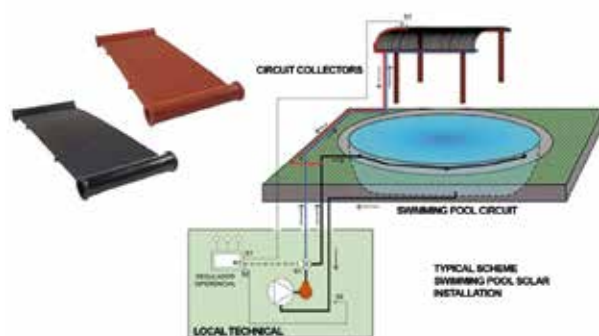
Swimming pool heating installations and multi-purpose...



## POOL HEATING

The pool water circulates through the polypropylene collectors, increasing its temperature and thereby transporting the energy captured from the sun back to the pool.

A system of sensors correctly sized allows a significant increase in water temperature during the summer .

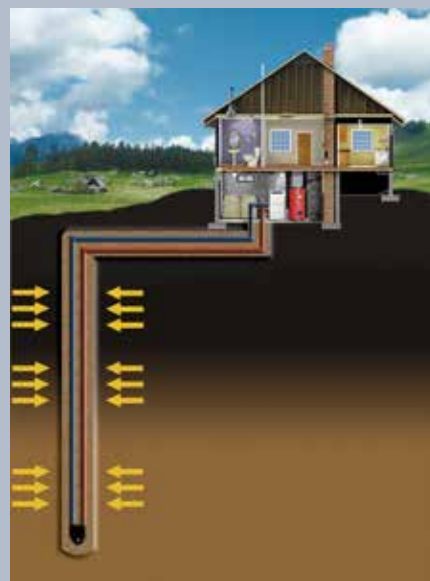






The system uses the geothermal energy that is present in the earth's crust to heat or cool the interior of an office or residential housing industry.

This technique represents an economic and ecological alternative energy sources based on fossil fuels.



## Significant advantages:

- Low power consumption (kWh cheaper price on the market)
- With geothermal energy saving up to 60% compared to fossil fuels.
- Easy to use throughout the year (very high level of comfort).



- Total respect of design, without environmental impact.
- Low maintenance cost.
- Heating and cooling at the same time.
- Production of hot water.



First european geothermal pump **with Copeland Inverter compressor**

## GEOTHERMAL PUMP WITH COPELAND INVERTER COMPRESSOR

First geothermal pump WITH Copeland Inverter compressor which provides unbeatable performance with lower electrical consumption, buffer tanks are not necessary, greater durability and reliability.



**ecoGeo** solar heat pump  
Leading edge technology

## ECOGEO SOLAR

This heat pump contains advanced power electronics that enable direct coupling to photovoltaic panels, which provide the electrical energy required for its operation and sending the surplus to cover the demands of the house itself.

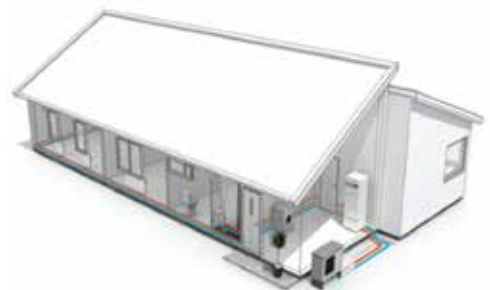




The heater is considered a renewable energy system to be energy-efficient. This system is economically profitable and ecologically sustainable.

The heaters energy is environmentally friendly.

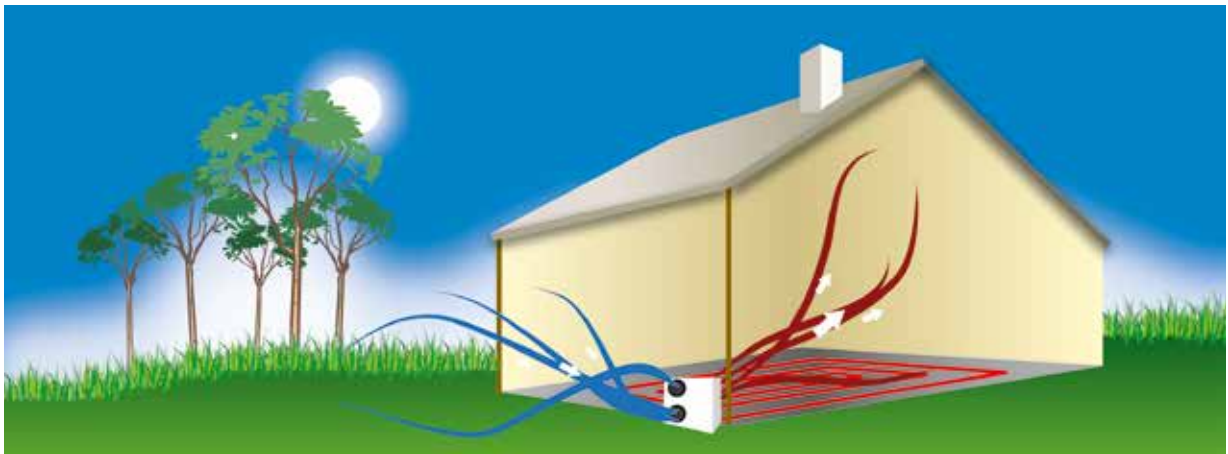
- The energy of the outside air is a source of free energy for an ecological heating.
- The energy delivered by air is inexhaustible, renewable and available in nature.



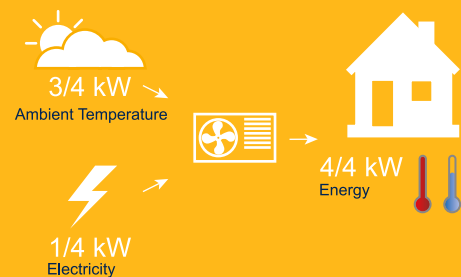
## DID YOU KNOW...

Aerothermal heating can be used in combination with solar collectors in order to produce hot water?

It can provide between 30-70% of the energy needed to produce hot water for a house. Whole solutions, think about the future.



The operation of the heaters is based on an air-water heat pump that absorbs and gets energy from the outside air and transfers the heat to the heating circuit inside the housing. At the same time cools the air in summer and manages the production of hot water.



**3/4**  
renewable  
ambient air



**1/4**  
electricity







In domestic or industrial buildings , the thermal energy demand can be supplied by biomass, either for heating or hot water.

In addition, biomass replaces solar thermal to meet the requirements of renewable energy sources use.

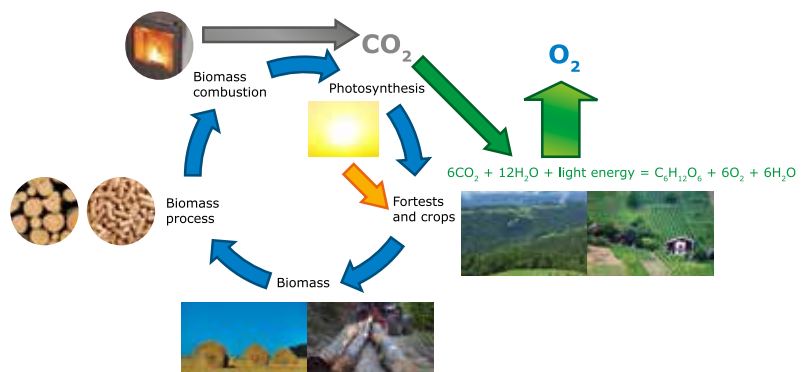


A system or installation of a boiler for heating and hot water biomass consists of the following equipment:

- Fuel Storage: can be made of containers, silos flexible textiles, underground tanks, etc. The fuel pellets can be logs, chips, almond shells, olive stone...
- Power system with endless screw, pneumatic or gravity.
- Boiler consisting of combustion chamber exchange , ash and smoke box.
- Deposit of inertia accumulation of hot water, re circulating pumps, piping, sensors, valves...



To generate thermal energy demand by buildings, used boilers designed to burn fuel stoves specific, making these boilers offer yields above 90%, so less fuel produces more heat.





## SMALL WIND POWER



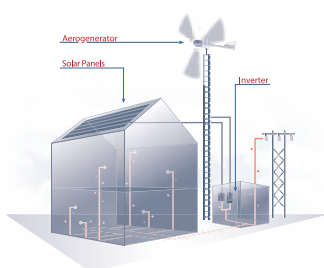
Wind is a renewable energy with great potential and is attracting great interest in today's society.

Historically, small wind turbines have been used mostly for consumption, stand-alone installations connected to batteries, in order to supply radio repeater systems, mobile systems, isolated homes and water extraction wells.



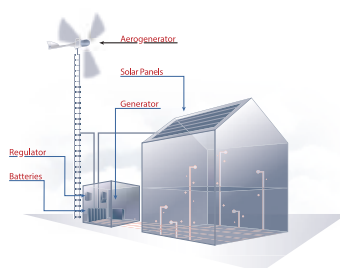
### 1 Networking systems

This kind of installation facilities are responsible for reinforcing the grid, supporting each point of consumption with micro wind generation.



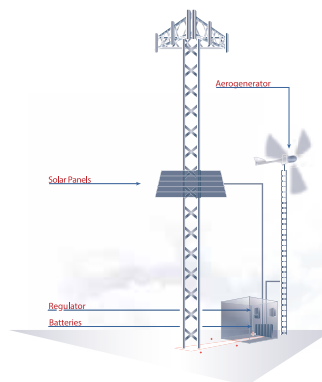
### 2 Isolated systems for own consumption

These facilities are used when there is a high cost or difficulty to bring the power grid to the place of consumption.



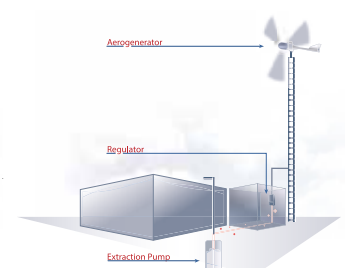
### 3 Food for telecommunications

For telecommunications are necessary radio antennae in very remote places that are able to transmit signals over long distances.



### 4 Water extraction systems

Another very common application is the extraction of water from wells, pump it into a tank or simply increase the pressure.







### **Assembly, installation and remote management of public lighting.**

For the lighting of roads, villages, fountains, monuments or facades we use a set of elements such as lights and projectors, depending on its placement, desired light intensity, environment and other factors.

The system used to manage any form intelligent lighting system with LED technology, improving energy efficiency. The costumers can manage the lighting remotely, reducing the total energy consumption.

The control software automates the operation of lighting and can follow a separate strategy for each point of light, reporting immediately by email or SMS of any anomaly.

Elèctrica Pintó discusses all aspects to design the optimal sizing of the installation: that means studying the impact of the installation, components, processes and operating conditions, the requirements of level and quality and energy waste.



### LED Solar Street

- Fully autonomous, the sun is the only source of energy.
- Powerful light that fully meets the needs for lighting: streets, shops, squares, parks, etc.
- 20 years life with battery change.
- 10 years of operation without any maintenance
- Pleasant white light.
- Flexible installation, no wiring required.





"There is a force more powerful than steam,  
electricity and atomic energy: will"

Albert Einstein

**ELECTRICAL WINDING** 



## ELECTRICAL WINDING



We are specialized in mechanic-electrical assemblies.

We offer inspection and windings of motors, alternators and transformers. We also have a workshop to repair all kind of electro-mechanical equipments.

We develop these services through Comelsa SL Company set in Manresa from 1985, and which has been recently acquired by GRUP AQUACENTER.





We check and repair motor electrical windings, alternators, both AC and DC transformers, single and three-phase.

Our quality is guaranteed by 30 years' experience manufacturing all type of windings with different dimensions, made by the highest quality materials, machinery and skilled workers, in order to offer a high quality and professional service. We can manufacture both the simplest motors and also the most complex alternators.

The productive method used to manufacture different type of windings guarantees the highest quality, as we have the required equipments such as impregnating facilities, drying oven and test bed.





**"Nature does great things  
without expecting any reward."**

Alexander I. Herzen

**PUMP REPAIR** ⚙️  
**ASSEMBLING WORKS** ⚙️  
**ELECTRO-MECHANIC WORKSHOP** ⚙️  
**INSTALLATION &** ⚙️  
**MAINTENANCE FACILITIES**



## PUMP REPAIR



Submersible and surface electrical pumps repair shop, providing verification of consumption and flow bench testing.

Maintenance "on site" to reduce the cost of repairs and minimize downtime of the pumping equipment.





### Increasing pressure

Centrifugal multicellular pumps increased fluid pressure.

### Groundwater Supply

Submersible pumps for water supply, irrigation, groundwater level decline.

### Domestic water supply

Submersible pumps, jet pumps, centrifugal pumps and compact systems for domestic water supply.

### Wastewater

Bilge pumps, waste water and sewage for a wide range of applications in building and transfer of wastewater into municipal sewers.

### Industrial applications

Pumps and pumping systems for installation in industrial processes and buildings.

### Dosing and Disinfection

Metering pumps for chemical injection in all types of water and wastewater treatment and industrial processes.

### All products

Pumps and pumping systems of all brands.





## ASSEMBLING WORKS



Our goal is to create a team together with our customers to reach a common goal and meet their needs with personalized attention.

### Assembling works

Specialized works on design and manufacture of collectors using all kinds of materials: stainless steel, galvanized steel, polyethylene, etc.

We realize all kind of facilities & installation of either domestic and industrial.

We have got a specialized team for welding processes (TIG, MIG and electrode) in order to achieve an efficient and high quality production.







## ELECTRO-MECHANIC WORKSHOP



**Skilled workshop specialized in any kind of electro-mechanical equipments repairation.**



We have the tools and know-how required for reparation and preventive maintenance works of electro-mechanical equipments:

- Pumps
- Engines
- Generators
- Alternators
- Transformers





## INSTALLATION & MAINTENANCE FACILITIES



Our company is specialized in maintenance and management of electro hydraulic facilities.

Elèctrica Pintó offers a wide range of services in all its departments.

It offers consulting services able to analyze needs, define solutions and advice, a service that prepares and executes engineering projects, budgets, systems integration...; and a maintenance service that offers preventive maintenance, fault repairs, online remote assistance, etc.



### Preventive maintenance

Although often not given the importance it deserves, preventive maintenance is definitely the best investment for any installation. If an installation suffers a lack of maintenance that often leads to breakdowns, mishaps, money and premature deterioration of the facilities. Elèctrica Pintó has decided, therefore, to expand the department of maintenance in order to offer an effective preventive maintenance adapted to all our customers.

### Objectives

- Ensure safety of equipment and / or facilities for staff.
- Reduce the severity of failures.
- Avoid stopping production.
- Reduce costs arising from maintenance, optimizing resources.
- Maintain equipment in safety and productivity.
- Extend the useful life of the facilities and equipment.
- Improve processes.

### Corrective maintenance

Interventions that are made to machines or facilities when the damage has already been materialized. Replace the damaged piece and then return the machine to its normal operating state.

### Predictive maintenance

It consists of the intervention program just before the failure occurs , taking into account factors such as the vibrations of pumps, engine temperature , noises , etc. that able us to predict that soon there might come a failure.





"Water is the driving force of all nature."

Leonardo da Vinci



**INDUSTRIAL COOLING** ❄️  
**AIR CONDITIONING** ❄️





When conserving delicate products, the temperature becomes an important issue. We offer optimal solutions for industrial refrigeration, adapted to each customer requirements and also to the specific industrial refrigeration for each application.

We also install air conditioning systems to obtain the optimal climate control both in industrial and domestic areas.





### Industrial Refrigeration

We work to offer high quality industrial refrigeration installations, such as freezing tunnels, walk-in freezer, preservation areas, refrigeration rooms,...

We are backed by our ample experience in this field and it is confirmed by many installations carried out, related to the meat industry and industrial sector.



### Air Conditioning

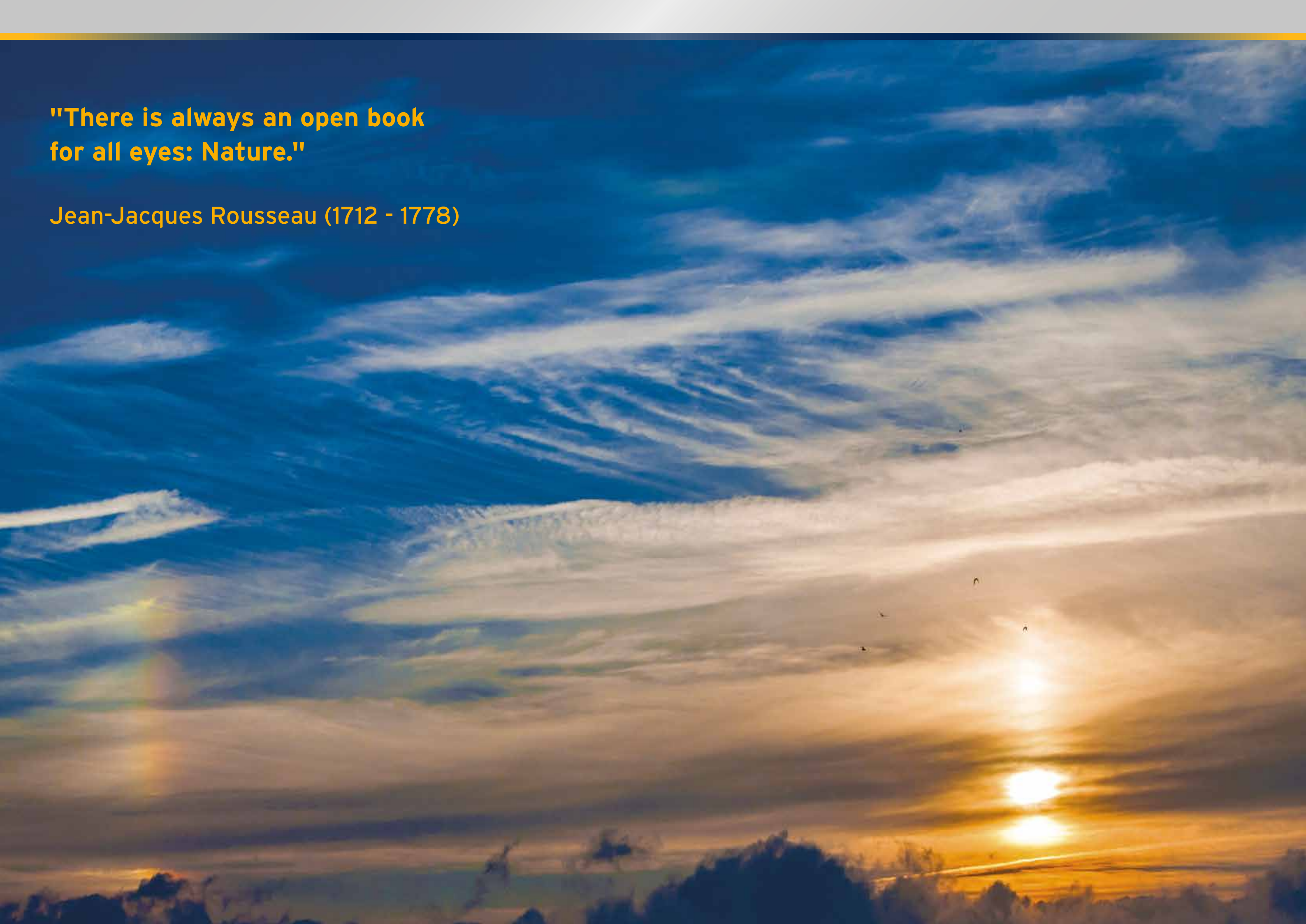
Taking advantage of our experience and knowledge in the industrial refrigeration field, we also provide service in the air conditioning installation area. We are capable to project and install different kind of systems, taking into account that the main aim is people comfort.

Our equipment is featured by a high energy efficiency coefficient, and also they are environmentally-friendly.



**"There is always an open book  
for all eyes: Nature."**

Jean-Jacques Rousseau (1712 - 1778)







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## **elèctricaPINTÓ**

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GROUP

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CONSTRUCCIONS MECANO-ELECTRIQUES

