

## Where every minute counts: healthcare with energy efficiency.

SAUTER Ibérica accompanies the 'sustainable hospital' in Fuenlabrada and helps to save almost a quarter of the energy costs.

### The basis for maximum energy efficiency – SAUTER controls systems throughout the hospital:

- 4 cooling systems
- 4 heating boilers
- 9 cooling and heating sub-stations
- 80 air handling units
- 150 VAV controllers
- 570 fan coils
- Compressed air systems
- Electrical signs and displays, lifts, emergency power groups
- Medical gases
- Central steam unit
- Integration of network analysers
- Integration of the fire detection system

### Project data

- Automation stations: approx. 1000
- Data points: approx. 15,000
- Management software: novaPro32 at three control points:
  - Technical services
  - Maintenance
  - Visualisation of alarms

Year	Gas consumption (kWh)	Elec. consumption (kWh)	Total consumption (kWh)
2005	14.348.186	14.505.168	28.853.354
2006	9.836.851	12.259.828	22.096.679
<b>Difference (%)</b>	<b>-31,44 %</b>	<b>-15,48 %</b>	<b>-23,41 %</b>

Efficiency right from the first year.

When human life is at stake, every hour, minute – indeed, every second, in some cases – is vital. Patients should receive the best possible care with no delays whatsoever. To achieve this, hospital staff also need the best possible working conditions: and to ensure that this happens, SAUTER has been a partner of the construction manager for this hospital building right from the outset – a partnership that is leading to vast savings.

Economising where the most valuable thing of all is involved? Cutting costs where people are making every effort to save lives? Or cutting costs for that very reason? Yes, is the simple answer. Because at Fuenlabrada Hospital, the building's energy consumption is being drastically reduced so that all the economic 'energy' can be devoted to the quality of medical care.

### The 'Sustainable Hospital' project: savings of 350,000 Euros.

A package of measures that could achieve energy savings of about 25% was developed and implemented in co-operation with the service department at SAUTER Ibérica:

- Control of the air-conditioning is based on the principle of free cooling.
- Time programming for the air-conditioning systems is based on actual demand.
- Thermostats were replaced with higher-quality controllers.
- Programmable panels control the lighting circuits.

- The level of efficiency of the lighting was increased.

Consistent implementation of these measures cut the hospital's consumption costs by an incredible 350,000 Euros in the first year, freeing up financial resources that the facility can put to better use for medical care in the future.

### Visible effects and a high level of safety.

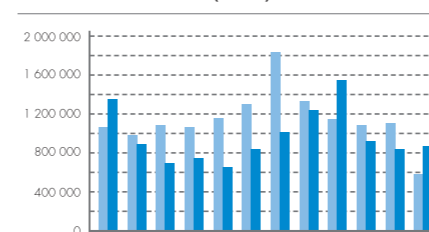
Throughout the close co-operation with the manufacturers of the central control systems and the hospital operators, SAUTER proved its excellence as a consulting specialist for energy-efficient building management and devised flexible methods for integration. At every stage of the project, patient safety was given top priority. Another welcome effect was the assistance given to our 'sick' natural environment – and this was not a side-effect but a deliberate objective. Now the hospital can project itself as a socially

committed facility thanks to the significant reductions in its CO<sub>2</sub> emissions. It rightly and proudly bears the name of the 'sustainable hospital'.

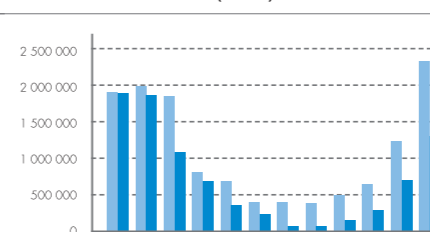
### What next?

Success has aroused even greater ambitions on the part of everyone involved. New projects that will reduce energy consumption even further are soon to be tackled, including the integration of the use of renewable energies into the control system (with the help of existing solar collectors, for example). Time- and temperature-based control of the air-conditioning equipment for sections of the hospital in different geographical locations is another of the next steps. The goal: to maximise comfort and efficiency, regardless of the prevailing meteorological conditions. SAUTER Iberica and the hospital's technical staff are ready for the challenge.

Electricity consumption 2005 – 2006 (kWh)



Gas consumption 2005 – 2006 (kWh)



Overview of the savings achieved.