

Case Study

Industrial Energy Efficiency

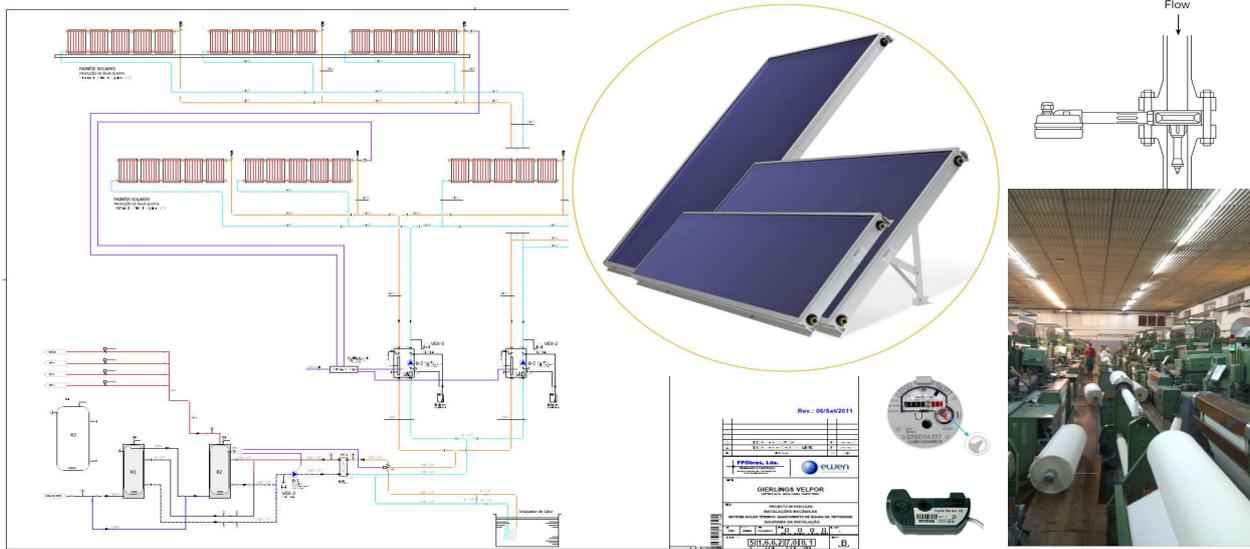


Sector: <input checked="" type="checkbox"/> Industry	<input type="checkbox"/> Large Buildings	<input type="checkbox"/> Infraestruturas	<input type="checkbox"/> Small buildings / residential
Subsector: Textil			Year: 2011
Client: Gierlings Velpor (Grupo Amorim)			Implementation (months): 12
Location: Santo Tirso (Northern Portugal)			Performance Contract (years): N/A
Type of Contract: Lump Sum / Fixed Contract Value Contract with performance guarantee			

Project description:

After a detailed energy audit by EWEN, a number of energy efficiency measures were selected and grouped into a project. The implementation of the company-wide project was awarded to EWEN, under a performance guarantee contract, and included the following measures:

- Dust extraction system - Instalation of dampers and a variable speed drive on a 50kW fan;
- Washing unit - Instalation of 30 thermal solar panels, for water pre-heating;
- Steam network - Insulation a large number of valves, steam traps and other piping components, with flexible thermal insulation (manufactured by EWEN);
- Textile drying tunnels - Optimization of the air extraction system, installation of variable speed drives and a humidity ad temperature control system, based on high-temperature humidity sensors;
- Energy Management - Installation of a remote monitoring system, with submetering systems for measuring consumption of costs associated with electric power, steam and water;
- Steam and compressed air networks - Detailed energy audits specifically aimed at these two systems were performed (including leak detection for compressed air, and identifying faulty steam trap), and a number of corrective / improvement measures were recommendation, and implemented by EWEN.



Project results:

The client experienced a reduction of 35% in the plant's specific energy consumption, from 4 to 2.6 kgep/kg. Our project was responsible for around 2/3 of this ~25% reduction, the remaining was obtained by a change in the production mix. In the following years, with continued support from EWEN, Velpor was able to further improve this important KPI by an additional 5%, reaching a total reduction of 40%, compared to the pre-project situation.

Velpor continues to monitor its industrial plant's energy efficiency, using EWEN's RMS (Remote Monitoring System), installed in this project.

