

The company's approach to energy efficiency and sustainability

The company has been committed to sustainable textile management since the beginning, acting not only out of self-interest but also conforming to the crucial market requirements of ecology and economy. The demand of consumers for eco-friendly methods in this industry has increasingly come to occupy centre stage in the last few years. In addition, the company positively achieved a certification to ISO 14001 and ISO 50001.

Steam system

The nominal capacity of the steam system, which consists of two boilers, is about 10 t/h. The nominal steam pressure is 16 bar. However, currently the maximum needed pressure level is 9.5 bar. In addition, pressure levels of 6 and 3.5 bar are used. The boilers use natural gas as fuel. The main consumers are the washing machines, the washing line and the drying line. On average, the system produces about 4–5 t of steam per hour. Most of the condensate returns from the consumers, but there are also consumers like the washing machines that use the steam directly.

Steam system problems identified

The steam system is in a good overall condition and several efficiency measures have already been implemented during the last years. Still, some potential for improvement has been identified.

Proposed energy saving measures, investments, and expected results

For certain consumers, the steam is purified to generate high purity steam. Presently, the condensate of the high purity steam is not used but drained directly to the sewer. It is possible to use this energy to preheat the fresh feeding water, whereby about 205 MWh per year could be recovered. Another measure can be implemented at the feed water system. At the deaerating system, there is always a loss of steam vapours. This energy can be recovered by a special cooling system, resulting in savings of about 230 MWh per year.

Implemented proposed energy saving measure(s), investments and results achieved (in figures)

The investment costs for the condensate recovery system were estimated to 22,000 €, the payback period is about three years. The system for the deaeration cooler costs about 20,000 €, which leads to a payback period of about 2.5 years.

Achieved and/or expected non-energy benefits (NEBs) as result of implemented and/or proposed measures and investments involved

Both projects increase the overall efficiency of the steam system and lead to lower CO₂ emissions.

Involvement of internal stakeholders

The management of the company is highly interested in implementing measures to achieve cost-effective energy savings.



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Textile Management

200 employees

Total (Estimated) Investment

€ 42,000

Total (Estimated) Savings

435 MWh

Non-Energy Benefits

**Reduction of natural gas
demand**

Lower CO₂ emission