

Companies connection to energy efficiency

The company is a participant of the long term agreements on energy saving that the sector has made with the Dutch government. The company agreed on 2% energy - efficiency improvement a year based on process-efficiency and chain-efficiency. Ertecece has got a certified ISO 14001 system

Steam system

The nominal capacity of the steam system, is about 5 t/h. The nominal steam pressure is 5,5 bar. The boiler uses natural gas as fuel. The main consumers are the EPS production (the presses), and the pre-foaming process. The processes are using direct steam injection. For water treatment chemicals are used. 10% of the condensate is returning to the boiler.

Steam system problems identified

The steam system is in a good overall condition and several energy efficiency measures have already been implemented during the last years, for example, a condenser is implemented and there has been an improvement of insulation and the cleaning of the presses is optimized.

Proposed energy saving measure(s), investments, and expected results (in figures)

Some cost effective projects that are proposed are the fixing of some steam traps that are leaking. The replacement of insulation and the adjustment of the O₂- set point in the O₂-measuring system in the flue gases. At a natural moment a smaller boiler and a different water treatment system are proposed. Some projects are written down as procedures for implementation into the ISO 14001 system.

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

The replacement and further insulation, the replacement of steam traps and the adjustment of the O₂-level in the flue gases are measures with pay back periods between 1 and 5 years. Investments in the insulation are normally payed back within 1,5 year, the replacement of steam traps may have a pay back period of 2 years , but this depends on the operating hours. A gasket of a pump needs to be replaced which may lead to further reduction of natural gas.

Achieved and/or expected Non Energy Benefits (NEBs) as result of implemented and/or proposed measures and investments involved

Further insulation increases the security and the replacement of leaking steam traps reduces incidents in the steam system due to water blow. All projects reduce the need for natural gas and so reducing the emission of CO₂.

Involvement of internal stakeholders

The technical manager and the plant manager are both involved in the project and very interested in new procedures for implementation into the ISO 14001 system and energy reduction projects.

The Netherlands

Plastic industry

EPS-manufacturing, insulation, building material

70 fte

Total (estimated) Investment

€ 33,000

Total (Estimated) Savings

500 MWh

Non Energy Benefits

Reduction of natural gas demand

Lower CO₂ emission

Higher security

