



Standard Fasel

Worldwide Energy Services

ENERGY ECONOMY





Energy savings

ENERGY ECONOMY

Your company uses steam and energy...

...and curbing the associated costs to a maximum is an economic must!!! There is significant potential to reduce the costs considerably in the vast majority of situations, without having to replace and renovate your installation. Based on the assumption that your company operations have already been optimised, there are still 3 focus areas where energy-consumption can be decreased:

1. Minimizing energy losses
2. Optimising the production of energy
3. Recovering 'waste' energy (utilising waste energy)

1. Minimizing energy losses

Unnecessary losses occur in the vast majority of steam and energy systems.

A few examples:

- poor or no insulation of boiler, boiler-piping and appendages constitute a potential loss of thousands of kWh of energy each year. Sound insulation pays for itself within a year.
- Leaks in steam piping and steam-traps constitute a loss of energy. A leaking steam-trap can lose 10-15 tonnes of steam per year for 4000 operational hours, generating an approximate loss of 1,000 m³ gas per year for a 10 bar steam system.
- A boiler capacity that is not fully utilised requires less combustion air. In many cases, the excess air is throttled. Substantial energy consumption savings can be made if the air volume is reduced by adding a frequency-converter on the ventilator instead of throttling the air.
- The drain off can be minimised in many cases, for example through conductivity selective draining or optimising the water-treatment.

□ Optimising energy production

In many cases, steam and energy production can be improved substantially by implementing relatively straightforward measures:

In order to optimise the operation of the burner-unit, an oxygen correction regulator will result in improved combustion and reduced stack losses in many cases. The efficiency of the energy- or steam production plant will increase further by reducing the stack losses using a combustion air pre-heater (a so called LUVO).

3. Utilising waste energy

All mediums in a steam system have residual energy. Your boiler plant efficiency will increase if this is utilised to a maximum. Additional energy can be recuperated from the flue gasses by fitting an economiser or a flue gas condenser. In general, there is a short rate of return on investments for systems like these, in most cases even within a year. There are viable options for utilising the waste energy in steam, condensate, drainage water and waste water in almost all situations. The focus is on buffer- and flash ves-sels, production devices and heat exchangers.

What can Standard Fasel do for you

Our service package for identifying the energy saving potential in your company includes:

- a steam and condensate system scan (S&CS scan) whereby an inventory is made of the steam and condensate system (boiler house, distribution network, steam consumption and heat consumption). This scan is predominantly based on a field-inventory
- an analysis of the current boiler plant, with the main focus on energy efficiency and utilisation of waste energy. This is primarily an office-based study, whereby we use the information you supply
- Steam trap checks using ultrasonic and temperature measurements
- Advanced maintenance programme for burner units and boiler plants.



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