

Environmental Statement

Environmental protection with particular emphasis on resource efficiency is part of our company's mission statement. In the realm of this, many projects have been carried out aimed at environmental protection. Further individual projects are underway. Here is an overview:

• **Fresh water & untreated waste water**

- Implementation of a research project concerning the anaerobic/aerobic treatment of waste water from starch production.
- Conversion of the production method from the "Martin Process" to the "Westfalia Decanter Process" with accompanying reduction in fresh water, waste water, and pollution load quantities.
- Start of operation of the internal sewage treatment plant with biogas production and the associated conversion from a direct to an indirect waste water discharge.
- Optimization of mechanical separation of solids from process water and waste water through centrifugal processes.

• **Thermal energy**

- Use of steam from the cogeneration plant for heating the drying plants resulting in a reduction in specific primary energy consumption.
- Optimization of mechanical de-watering systems resulting in a reduction in primary energy consumption.
- Reduction of losses of high pressure condensate and boiler water resulting in a reduction in primary energy consumption.
- Utilization of waste heat.
- Pilot-plant installed to dewater sewage sludge by using rejected heat.

• **Electrical energy**

- Introduction of a load management system
- Increase in machine efficiency
- Biogas electricity
- Cogeneration plant based on solid fuel
- Replacement of motors to higher efficiency motors class
- Replacement of light bulbs to more energy efficient (LED) bulbs
- Optimization of the pneumatic conveying of products
- Development and enhancement of measuring stations

• **Emissions**

- Conversion of the vapor production (cogeneration plant)
- Physical deferrization of our well water thus eliminating the need for the chemical treatment of fresh water used in production.

With these and other measures, the following improvements have been achieved in recent years:

- **Fresh water**

- 1979 – 2022: Reduction of specific fresh water consumption by 49,6%

- **Untreated waste water**

- 1976 – 2022: Reduction of the amount of untreated waste water by 88,9%

- **Thermal energy**

- 2009 – 2022: Reduction of specific thermal energy consumption by 2,4%
- 1993 – 2022: Reduction of specific thermal energy consumption by 33,7%

- **Electrical energy**

- 2021 – 2022: Reduction of specific electrical energy consumption by 1,2%
- 1993 – 2022: Reduction of specific electrical energy consumption by 13,1%

- 2021 – 2022: Reduction in use of biogas by 2,2%
- 2001 – 2022: Increase in use of biogas by 65,5%

- 2021 – 2022: Increase of “electrical energy for in-house use generated from renewable energy” (biogas) of the total electrical energy consumption about 20,0%
- 2009 – 2022: Reduction of 25,9%

- 2021 – 2022: Reduction of “electrical energy generation for in-house use with high utilization of primary energy” of the total electrical energy consumption about 1,3%
- 2009 – 2022: Increase by 22,4%

These projects and our mission statement are based on a responsible and efficient use of natural resources.

Ibbenbüren, April 2023