



Sandoz GmbH Schaftenau

Sandoz is one of the world's leading generics companies, including a wide range of high-quality and cost-effective medicines. Sandoz Austria employs around 4,000 employees across its three locations at Kundl, Schaftenau and Vienna.

Every year, the plant in Kundl distributes some 200 million pharmaceutical packages across more than 100 countries. The Schaftenau plant is home for one of the most modern cell culture facilities in Europe. The newest recombinant proteins for clinical studies are being tested and produced at this site. The cell culture includes three production lines.

Living energy efficiency in daily production

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Savings

1,675,000 kWh/a

Amortisation Time

1 year

Year of Realisation

2011

Time Saving in Sanitation

Water Savings (less steam plume)

Increased Energy Efficiency

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Initial Situation

The main energy consuming units in the production process are a) the ventilation systems which are needed to maintain optimal room conditions and b) the pure water and steam generators. These units are essential in the production of the highest quality biopharmaceutical substances. Before the successful implementation of measures, total energy demand of the cell culture in 2008 amounted to 20.77 GWh /a (15.01 GWh of heat, 5.76 GWh of electricity).

**Hot Water and Steam Systems
Checking the steam trap system:**

periodic review of all steam traps by means of ultrasonic measuring equipment. During the initial review in 2009, 9% of all steam traps were identified as defective.

Savings: 500 MWh/a

Separation of used hot water: installation of separate outlets for used hot water and adjustment of the controls so that the main heating pumps switch off during elevated external temperatures. Energy savings as main heating pumps and distribution networks switch off down during hot summer months. **Savings: 250 MWh/a**

F0 value sanitisation: The sanitisation time is determined by a function of temperature and calculation of the F0 value. Reduced steam consumption, enormous time savings in sanitisation of several devices in network.

Savings: 550 MWh/a

Reduction of hot water system temperature: reduction of system temperature from 121°C to 60°C. Temperature is only to rise if sterilisation requirements need to be met. Avoidance of standby losses and savings of natural gas to steam production achieved. Savings of electricity for

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refrigerating equipment to remove heat loads.

Savings: 145 MWh/a

Flash steam recovery injection water generator (WFI): Up to now condensate with 8 bar was collected in an unpressurized condensate tank, now the flash steam is fed through a 100 litre flash steam recovery vessel to an existing 3 bar steam network. Besides energy savings, the steam plume on the roof is also significantly reduced.

Savings: 230 MWh/a

Prepared under the klimaaktiv programme of the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management

klimaaktiv

