



Them Co-operative Dairy – upgrading the production process

THEM DAIRY WAS FOUNDED IN 1888. IT IS A SMALL SPECIALISED DAIRY PRODUCING VARIOUS TYPES OF YELLOW CHEESE, FROM ORGANIC AS WELL AS NON-ORGANIC MILK. THE ANNUAL MILK SUPPLY TO THE DAIRY 60M KG.

Them Dairy

Them Dairy has expanded and upgraded its production several times during its long period of existence. Them receives water from a municipal water supply system and discharges wastewater to the a municipal wastewater treatment system.

Upgrading the cleaning process – saving water, energy and chemicals

Them has replaced an old one-chamber CIP system by a new an bigger CIP system, and furthermore the dairy has improved its monitoring and control system. In the older one-chamber system, lye and acid were discharged directly to the wastewater system, but with the new system these substances are reused. The water from the final rinse is now reused in the first rinse and the intermediate rinse is minimized.

Energy is saved because the water from the last rinse, having a temperature of



Them produces a wide variety of yellow cheese (Copyright Them Dairy)

Dairy products – key figures

Yellow cheese
 60 million kg milk/year
 78.000 m³ water/year
 1.3 liter of water/kg milk processed. 1.1 liter of water after implementation of investments
 Data from the European Commission on water consumption in cheese production: 0.6-5.8 liter of freshwater per kg milk processed

Water Issues

Reduction of water consumption and discharge of wastewater
 Reduced loss of product during cleaning in place (CIP)
 Expand production with same amount of water consumption

solutions

Upgraded monitoring and process control of a new Cleaning in Place (CIP) system
 Elimination of pump seal water consumption

Savings and payback period

Water savings of 10.600 m³/year , corresponding to 13,3% of the total water consumption. Payback period of investment is two to five years.

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Them Dairy has expanded and upgraded its production several times during its long period of existence. Them receives water



New Cleaning in Place (CIP) system installed at Them Dairy (copyright photo Them Dairy)

Water and cost saving

The implementation of the two water-saving solutions has led to a total water saving of 10.600 m³/year, corresponding to 13.3% of the total water consumption. The cost saving per year is estimated to 400,000 DKK, and the payback period for the investments is estimated to 2-5 years. As the water-saving technologies also save energy and chemicals, the total cost savings are actually higher.

l water. This water is discharged to the wastewater system. Them k which reuses the seal water. The system has been installed on tal water saving is 5000 m³ /year

The water saving and reuse activities were implemented in a 3-year. Investments were partly supported by the grant. The project was u



Pump seal water system installed at Them Dairy (Copyright photo Them Dairy)