



CASE:

Increased capacity through improved line efficiency in Hoogeveen, The Netherlands

New whey circulation system increases line productivity and efficiency



► The Challenge

DOC Kaas, a dairy co-operative situated in The Netherlands is a high quality producer of natural and foil ripened cheese since more than a century. With a strong focus on environment and quality DOC Kaas believes in using state-of-the-art technology for every step of the process – from milk reception to milk treatment and cheese production. DOC Kaas foresaw a need for further production capacity and wanted to increase the line efficiency of their latest Semi-hard cheese production line.

► The Solution

In 2002 Tetra Pak delivered ten Tetra Tebel OST cheese vats and an eight-column Tetra Tebel Casomatic SC system to DOC Kaas for their new Semi-hard cheese line.

Over the past years the skilled staff of DOC Kaas worked continuously together with Tetra Pak to improve and fine-tune the equipment to optimize the performance of the line. One of the latest improvements is the optimization of the hygienic performance of the Tetra Tebel Casomatic SC system.

Tetra Pak recently launched a new functionality, the whey circulation system, which prevents curd fines sedimentation in the drainage sections. This functionality is included in the latest version of Tetra Tebel Casomatic SC 7 but is also available as an upgrade for existing systems.

"We knew that the whey flow in the drainage section behind the perforations was relatively low, which resulted in sedimentation of

fines," said Product Manager Symen Sipma of Tetra Pak. "These sedimented fines lower the hygienic quality of whey in time and thus are a potential source for bacterial growth that limits the production hours. By eliminating this, the production time increases and even more importantly, the CIP time reduces significantly."

After intensive preparation and testing, all the Tetra Tebel Casomatic SC units were equipped with a whey circulation solution on the whey sections. This means longer running times before CIP as well as shorter CIP procedures.

► The Result

The new whey circulation system resulted in a significant increase in line productivity and efficiency. "We achieved considerable fewer stops for CIP and the CIP time was reduced by 30 percent," explained Plant Manager Gerard van Riel of DOC. "These longer production runs result in more cheese produced at DOC Kaas."

The new solution also has additional benefits. Whey quality has been improved and the microbiological quality of the whey at the end of production as well.

Product recovery has improved as less fines go to drain and towards CIP. The new solution has less impact on waste water treatment, 10m³ less CIP liquid is drained per day, due to significantly less curd remaining in the Tetra Tebel Casomatic SC installation after production.

CASE:facts

DOC Kaas, The Netherlands



COMPANY

DOC Kaas.

SITE

Hoogeveen, The Netherlands.

PROCESS

Cheese, milk powder and whey powder production.

PRODUCT MIX

Natural ripened cheese and foiled cheese.
Milk powder and whey powder.

PRODUCTION CAPACITY

800 million kilos of milk/year.

PRODUCTION CYCLE

25 hours production per cycle.

PROJECT TIME FRAME

Project awarded in March 2009
Installation erection completed in July 2009
Start of operation: Summer 2009
Optimisation finalized: October 2009

KEY EQUIPMENT

- Eight-column Tetra Tebel Casomatic SC 6
- 10 Tetra Tebel OST vats
- Whey circulation system
- CIP System

KEY PERFORMANCE CRITERIA

- Better whey quality
- Longer production runs
- Shorter cleaning time
- Better fines recovery



For further information, please contact your local Tetra Pak company or send an e-mail to info.processing@tetrapak.com.
Tetra Pak, , PROTECTS WHAT'S GOOD Tetra Tebel OST and Tetra Tebel Casomatic are trademarks belonging to the Tetra Pak Group.
Product code TPPS11123.