
CASE STUDY

Food & Beverage Applications

The Cricketfilter® automated system significantly improved salt bath filtration efficiency leading to a more profitable operation

THE AMAFILTER® TEAM WORKED CLOSELY WITH THE CUSTOMER TO SIGNIFICANTLY IMPROVE THE CUSTOMER'S SALT BATH FILTRATION PROCESS, IMPROVE PRODUCT QUALITY, REDUCE MAINTENANCE COSTS, AND LEAD TO A MORE PROFITABLE OPERATION.



amafilter[®]
Filtration Group[®]



THE CHALLENGE

Amafilter® were approached by one of their existing customers, a European leading producer of quality cheese products enjoyed world-wide, to assist them to find a solution to their existing salt bath filtration process issues.

The customer was using strainer filters for their filtration process, but these were maintaining the salt bath properties for less than 3 months, after which the bath needed to be drained and refilled. This was causing significant quality issues.

The salt bath contaminants built up quickly and even though the strainers were cleaned manually every 2 hours, at significant process cost, this was not sufficient.

Due to the ineffective salt bath filtration process, yeast and mould was forming on the final hard cheese packaged product. Over time and despite being displayed in refrigerators at retailers sites, the hard cheese became mouldy. The customer needed to improve the filtration process and reduce yeast, mould and bacteria formation on the cheese.

THE SOLUTION

The amafilter® team reviewed the customer's process and advised the company that the best solution for their application, and to resolve their quality problems, was to install a Cricketfilter®.

The Cricketfilter® operates with a high relative flow rate (flux) of 1.000 lt/m² per hour and a precoat layer of 1 kg/m² filtration area which provides a constant filtration time of ~12 hours followed by automatic back flushing.

The Cricketfilter® removes greater amounts of yeasts, moulds and bacteria requiring less regeneration intervals than other systems.



THE RESULT

The cricketfilter® system proved to be very effective and delivered stable bacterial quality in the salt bath, which prevented the formation of mould and yeast on the hard cheese.

- The outcome for the customer was a substantial reduction in quality issues as mould was rarely forming on the hard cheese once dispatched, improving the final product quality and significantly reducing product recalls.
- A further benefit gained by installing the cricketfilter® was that the system ensured that the salt bath remained clean throughout the process, leading to an increase in productivity as the diffusion of salt in the cheese was faster with a clean salt bath.
- Furthermore, the previous filtration system required daily cleaning whilst the cricketfilter® requires no daily cleaning as it is an automated system. This resulted in significantly longer filtration cycles times before cleaning was required, from days to weeks, substantially reducing maintenance costs and making the operation more profitable.

OUR PRODUCT

The Cricketfilter® features and benefits:

- Up to 40% larger filtration area than traditional pulse tube filter systems
- Large filtration area within a small footprint
- Hermetically closed system and can be fully automated
- Suitable for direct cloth filtration or precoat/body-aid filtration
- High filtrate quality
- The Cricketfilter® is simple to clean. It uses air or gas pulses for cleaning the elements section by section, without requiring a vibrator
- Low maintenance
- Suitable for a wide range of applications
- The Cricketfilter® can be used with filter cloths of various pore sizes and materials. This reduces and at times eliminates the amount of extrapre-coating needed, making filtration more economical.
- Cricketfilter® automation. It is possible to automate, therefore ensuring low necessary maintenance

The customer commented:

“The Amafilter® engineering and sales team responded promptly to our requirements and worked closely with our team, to find the most effective solution for our process. The cricketfilter® brought significant improvements to our filtration process by delivering a higher quality product, improving productivity and reducing cost as no manual cleaning is required, making our production more costs effective all around.”

