# Gemak Sets New Standards in UK Whey Processing

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## Media:












Gemak has successfully completed “Project Dragon”—a state-of-the-art whey, milk and cream processing with CIP units for South Caernarfon Creameries (SCC) in North Wales. From its inception to commissioning, this project highlights a transformative journey in the UK dairy industry, setting new benchmarks in efficiency and environmental stewardship.

## The Genesis of Project Dragon

South Caernarfon Creameries, Wales’ oldest and largest farmer-owned dairy co-operative, with 160 farmer members supplying locally sourced Welsh milk, produces over 20 varieties of high-quality Welsh and British cheeses embarked on a £15 million expansion plan to increase its cheese production capacity from 15,000 tons to 23,000 tons annually. Backed by a £5 million grant from the Welsh Government’s Food Business Investment Scheme, this investment aimed to bolster SCC’s resilience and competitiveness in the global market.

Alan Wyn-Jones, Managing Director of SCC, mentioned that *“After a thorough tendering process, Gemak was chosen due to their ability to integrate into our existing processes and systems, lead times, quality and competitiveness.”*

## Gemak: An Industry Leader

Established in 1986, Gemak specialises in the design and manufacture of world-class hygienic processing equipment and engineered solutions for the dairy, beverage, food, plant-based, and chemical sectors.

## A Vision Realised: Advanced Technology and Sustainability

Gemak’s role in “Project Dragon” was pivotal. Besides leveraging its expertise in designing and manufacturing hygienic whey processing plant, the project also included a new milk and cream processing plant, storage silos, and a CIP unit for SCC’s existing cheese plant. The facility boasts a processing capacity of 600 tonnes per day of milk and whey concentrate, making it one of the most advanced dairy processing plants in the UK. This groundbreaking technology not only ensures exceptional product quality but also streamlines processes, reducing energy consumption, reduction in carbon footprint and optimising resource utilisation.

Kursat Uysal of Gemak UK expressed the company’s enthusiasm for the partnership:

*“We were proud and excited to have been chosen by SCC as their technology partner for this project and even more proud to have successfully completed and achieved KPIs. This milestone marks an important step for Gemak in entering the UK whey processing market.”*

## Pioneering Sustainability Achievements

Andrew Lyons from Engineer IQ, who led the process project management, stated, *“The plant was designed to deliver optimal operational efficiency and sustainable solutions with stringent KPIs on waste levels, utility consumption, and operating costs.”*

The completion of Project Dragon goes beyond conventional targets, achieving above expectation sustainability milestones. Initially designed for net-zero water consumption on-site, the facility exceeded expectations, earning a “**Net Zero Plus water**” distinction by generating over 100,000 litres of high-quality clean water daily beyond what is recovered and reused on-site.

Gemak also delivered a facility capable of processing whey at a rate of 30 tons per hour and producing whey concentrate from RO (HIRO) with an unprecedented capability of **30% total solids—a first in the UK**.

## Delivering Tangible Results

The facility’s performance has achieved every set of KPI in:

- Continuous run time
- Yield recovery per litre of whey and milk
- Process accuracy
- Waste reduction









Alan Wyn-Jones expressed his satisfaction upon the project's completion:

*"Completing this project has been both a challenging and rewarding experience. Gemak's team demonstrated dedication and expertise, making the collaboration productive. Their hard work played a key role in achieving our goals. I appreciate their commitment and look forward to future collaborations."*

## Collaborative Success

The project's success is a testament to the collaborative efforts of SCC, Gemak, and their partners. Gemak worked closely with industry leaders Alfa Laval, Schneider Electric, Tetra Pak, Grundfos, and Ematics to deliver a truly world-class facility.

Gemak would like to extend their gratitude to Andrew Lyons and Richard Pettifor who has been crucial and involved in process design, problem solving and execution.

Kursat Uysal also reflected on the project's successful completion and commissioning:

*"We are delighted to have completed this monumental project despite the challenges along the way. Establishing one of the UK's most advanced whey processing facilities, capable of producing whey concentrate with 30% total solid, is a milestone for the UK dairy industry and a source of immense pride for us.*

*I would like to extend my heartfelt thanks to our valued client SCC, the dedicated Gemak team, and all our solution partners for their perseverance and commitment.*

*By exceeding our KPI's, this project has greatly contributed to sustainability and efficiency, and we believe it will pave the way for many more important projects. We eagerly look forward to collaborating on future projects with SCC and achieving new milestones together."*

## Conclusion

Gemak's completion of Project Dragon underscores the company's leadership in sustainable and efficient dairy processing solutions. By breaking new ground in technology and environmental performance, the facility not only enhances SCC's operational capabilities but also sets a precedent for the global dairy industry.

As Gemak continues to push the boundaries of innovation, this project serves as a shining example of how industry collaboration can lead to transformative achievements in sustainability and efficiency.

At Gemak, we are proud to showcase this achievement visually. We invite you to watch our project video and see the scale of Project Dragon come to life: **https://vimeo.com/1073614693**

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