

### ecoduna is revolutionising the microalgae production

It may sound surprising to many but Austria and algae are a good match. Some considerable time ago, eparella GmbH, a subsidiary of ecoduna AG, took a pioneering step in producing microalgae on an industrial scale in Bruck/Leitha near Vienna. This May the global technology leader showcased its technical innovations along with the products and market opportunities to interested trade visitors at Vitafoods Europe 2018.

#### Growth markets

Worldwide, the microalgae business is already generating billions of euros in sales. Owing to microalgae's extraordinary content of high-quality fatty acids (omega-3 and -6), natural colour and valuable proteins, the product's potential is nowhere near exhausted.

#### Largely contamination-free system

The patented process of ecoduna allows the production of microalgae with a massively improved quality: the microalgae proliferate within a high-purity environment in a closed, largely contamination-free system – a crucial factor that is especially appreciated by demanding customers.

"This clearly sets ecoduna apart from its competitors," says Karmel. Furthermore, the plant can produce various types of microalgae according to the respective customer requirements.



#### ecoduna technology

The inventors of the ecoduna technology have always sought to avoid sources of error of existing photobioreactor (PBR) systems. In turn, they have converted them into production advantages. After several years of continuous development work, a groundbreaking decision was made in 2015: switching to a new material – by replacing plastic with glass – signified a turning point for the company.

This conversion allowed ecoduna to optimise the service life of the modules while at the same time increasing the system's productivity. This last step made ecoduna's technology ready and suitable for mass production.

[www.ecoduna.com/?lang=en](http://www.ecoduna.com/?lang=en)

### Simple way to reduce risk of food product recalls

Labcell Ltd, the UK distributor for Decagon Devices (Meter Group), is pleased to introduce the AquaLab Series 4TE water activity analyser which is ideal for Quality Assurance and Research and Development applications.

A quick look at the 'Food alerts' section of the Food Standards Agency's website shows how many products are recalled – in the last twelve months there have been approximately 80, almost half of which were due to the possible presence of moulds or bacteria such as Salmonella, E. coli, Clostridium Botulinum and Listeria. Every recall is costly to the manufacturer, for their finance and reputation.

Labcell is reminding food producers that maintaining water activity

(also referred to as Equivalent Relative Humidity or ERH) within acceptable limits can inhibit microbial growth without compromising shelf life, colour, flavour, texture or odour, and without recourse to artificial preservatives.

The company offers the latest AquaLab Series 4TE water activity analyser as a simple, quick and cost effective way to obtain quantitative data that provides an invaluable indicator of safety and quality of both ingredients and food products.

Different ingredients and food types have water activity thresholds below which microbial activity is inhibited; above this level there is a significant risk that the ingredient or food product can



become unsafe. For example, by maintaining the water activity below 0.91 aw in products such as cheddar cheese, cured meat and bread, it is possible to inhibit the growth of microorganisms including Salmonella, Clostridium Botulinum and some moulds.

Further information is available from Labcell's website at: [www.labcell.com](http://www.labcell.com) or by contacting the company via phone on: 01420 568150 or by email: [mail@labcell.com](mailto:mail@labcell.com)

### Center Parcs drives up productivity with Checkit

Center Parcs, the leading UK short break provider, has adopted Checkit's Real-Time Operations Management solution as an important step towards optimising its operations across its 5 UK locations.

Center Parcs teams are now using Checkit for critical food safety compliance procedures, freeing up valuable time and boosting efficiency.

"Checkit was chosen not only because it provides a single-vendor solution that delivers both monitoring and paperless work management, but also because it can scale to meet our longer term needs. This will allow us to progress from an initial scope of food safety management to also streamlining and improving front-of-house operations and exploiting business intelligence reporting. It's a partnership with a bright future," said Gavin Riley, Food, Beverage and Retail Manager.

Already implemented and extensively evaluated on two villages – Woburn Forest and Whinell Forest – Center Parcs is now introducing Checkit to its remaining UK locations, plus a new one in Ireland that is expected to be completed by the summer of 2019.

According to Gavin: "Our experience so far suggests that, when all the UK locations are complete, we will be freeing



up more than 20,000 hours per year. That is important time we can reinvest in the business, improving processes and training."

According to David Davies, Checkit's Director of Product and Marketing, "Center Parcs has really put Checkit through its paces before deciding to deploy at scale. We are very pleased to have been able to meet this challenge and are excited to be now involved in such an ambitious roll out with clearly defined benefits."

Full case study: [www.checkit.net/resources/case-studies/center-parcs](http://www.checkit.net/resources/case-studies/center-parcs)

[www.checkit.net](http://www.checkit.net)

### Christeyns Food Hygiene launches the ultimate CIP Solution

Christeyns Food Hygiene, based in Warrington, has partnered with H&M Disinfection Systems to launch a new, bespoke containerised CIP system for optimising cleaning equipment in the food and dairy industry.

Container In Place is a bespoke, containerised Cleaning in Place (CIP) system which comes fully loaded and self-contained, ready to be connected directly to existing pipework, tanks and associated equipment, providing an immediate and cost-effective upgrade to cleaning requirements.

In many plants CIP equipment can be old and those responsible for its specification, installation and setting of parameters may no longer be with the business.

In addition, modifications to the CIP set may have taken place over time, changing the original operating parameters or flow dynamics, which can affect the efficacy of a clean. Emerging food safety challenges in recent years, such as allergen management and species control, may have also placed additional burdens on the equipment.

Modernising or replacing a CIP set itself requires capital expenditure which may be difficult to secure. There is also the challenge of being able to assign a sufficient break in a production schedule to actually replace pumps, tanks, heat exchangers and control equipment.

This new Container in Place system is completely self-contained with its own heating system and as it only requires a water and power source it can be flexibly



situated. The system also provides full PLC control, CIP printed reports and remote access.

The full system fits inside a standard 20 foot shipping container and can be built to order in around three months. The Container in Place not only frees up factory space but also allows a CIP system to grow as business grows, without any interruption in production. It also acts as a back-up system during breakdowns or maintenance.

Providing flexible solutions for cleaning and sanitising, tailored to individual needs is what Christeyns Food Hygiene does best. With around 30 years of experience, it is one of the UK's most trusted providers of industrial hygiene solutions, working across the food, beverage, brewing, dairy and pharmaceutical industries.

For further information, please contact our Engineers on 01925 234696 or Andy Bethel on 07912 084220

## Five ways to improve your vacuum packaging hygiene



For food producers, the biggest priority is always the health and safety of their customers. High standards of hygiene and sanitation are imperative at every stage of production, from the sourcing of ingredients, to the time the finished product reaches the consumer. We have outlined five key areas of

food packaging hygiene gives for consideration, adhering to which will significantly lower your contamination risk in your food packaging process.

5 ways to avoid this potential contamination include

- 1. Fit downstream oil filters and check them regularly**  
Downstream filter act as another safeguard against accidental food contamination whilst, blocked filters have the potential to fail and allow carryover of oil into the process.
- 2. Carry out regular and timely maintenance**  
Poor Maintenance can lead to oil contamination from oil-lubricated vacuum

pumps. Regular preventative maintenance is your best option to avoid potential contamination. Poor maintenance practices or minor equipment faults can risk oil discharging from the exhaust. This presents a big problem for sites where air quality can't be compromised. Whereas, correct and regular maintenance not only ensures optimally running pumps that have little or no oil carryover, but increases pump efficiency and pump life expectancy.

#### 3. Use food grade lubricant

Even with a high level of carefulness and due diligence, the transfer of trace amounts of lubricant to a food contact surface, food packaging or the food itself can happen, regardless of procedures. Food grade or incidental contact lubricants are specifically designed to meet strict regulatory limitations.

#### 4. Always use genuine parts

Oil-lubricated vacuum pumps run the risk of oil being discharged from the exhaust, and there is the chance a separator element may fail due to misuse, a poor fit or poor quality. Genuine parts will dramatically reduce the risk



of this happening, ensuring a longer lower risk operational life than if non-genuine spares and parts are used.

#### 5. Go Oil-Free

Another option is to choose an oil-free vacuum pump. These have been specifically developed to meet the needs of manufacturers requiring only the highest air purity standards. Oil-free vacuum pumps don't require the same level of maintenance as oil-lubricated models, as there is no need to replace oil or filters. This also provides the added benefit of cutting down on costs over a pump's lifetime. Another major advantage to an oil-free

vacuum pump is that it doesn't have to be removed to carry out maintenance. This means a dramatic reduction in equipment downtime and associated costs from oil, waste oil disposal or labour. With the focus on air quality only likely to increase as time goes on, there's real potential for those operating in production sensitive environments to reap the rewards of oil-free vacuum pumps.

Elmo Rietschle free no obligation site visits by our vacuum experts who will perform a vacuum survey, reviewing these points and more with our food packaging experts. Please contact Elmo Rietschle via their website at [www.gd-elmorietschle.com](http://www.gd-elmorietschle.com)

