



Umgang mit dem Desinfektionsmittel Anolyte und dessen Produktion vor Ort. Klein: „Wir setzen keine Gefahrstoffe ein, benötigen keine Schutzkleidung und auch keine jährlichen Gefahrstoffschulungen mehr.“

Bürger vertraut weiterhin auf Innowatech und will in Bereichen, wo es Optimierungsmöglichkeiten gibt, weiter in die ECA-Technologie investieren. „Es ist ein vernünftiges Hygienekonzept, das wir gerne weiterempfehlen“, sagt Jörg Kleemann.

Trinkwasserqualität garantiert

Fazit: Viele Lebensmittel kommen bei der Verarbeitung mit Wasser in Kontakt. Gesetzliche Vorschriften erlauben dazu meist nur die Verwendung von Wasser, das der Trinkwasserverordnung entspricht. Innowatech Anolyte® ist zur Trinkwasserbehandlung zugelassen und sichert das Trinkwasser im gesamten Leitungssystem gegen mikrobiologische Kontamination ab. Durch die hohe Stabilität und die hervorragende Wirkung beim Abbau/Verhindern von Biofilmen beschert Innowatech auch in kilometerlangen Trinkwassernetzen und an den entferntesten Entnahmestellen Trinkwasserqualität.

Dabei können sensorische Einflüsse auf Lebensmittel ausgeschlossen werden. Anolyte hilft bei der Absicherung der Produktionsprozesse, erhöht die Produktsicherheit und unterstützt bei der Optimierung von Prozessschritten. Die optimalen Konzentrationen von Anolyte bei diesen Anwendungen sind dabei nahezu immer konform mit der geltenden nationalen und europäischen Trinkwasserverordnung. ■

Im Südwesten isst jeder Einwohner 42 Maultaschen im Jahr, deutschlandweit sind es bislang 7. Bürger im Nordosten Baden-Württembergs setzt auf Wachstum.

In the southwest, every resident eats 42 Maultaschen per year, compared to 7 across Germany as a whole. Bürger in northeast Baden-Württemberg is focusing on growth.

RAVIOLI ATTACK

For two decades, Swabian ravioli specialist Bürger has relied on Innowatech’s disinfection technology for drinking water hygiene.

The family-owned company Bürger produces 2.8 million raviolis—in Germany called Maultaschen—every day. The Head of Quality Assurance and Control (QA) at Bürger, Dr. Jörg Kleemann, has been working with hygiene specialist Innowatech GmbH for 20 years. He is absolutely convinced of the effectiveness of its disinfection technology based on membrane-divided electrolysis.

The medium-sized company Bürger in Ditzingen near Stuttgart is the national market leader in the production of pre-made fresh pasta. Bürger raviolis have been around for over 60 years. For 20 years, the family-owned company with annual sales of over 300 million euros has relied on Innowatech technology for hygiene at its production sites in Ditzingen and Crailsheim. “We are very satisfied,” says Kleemann. “Microbiologically safe drinking water is essential for us. We have been working very successfully with Innowatech’s hygiene concept for 20 years.”

350 tons per day

Visit to the production site in Crailsheim in the northeast of Baden-Württemberg. Bürger employs around 1,000 of its total workforce of 1,200 here. To illustrate the scale of daily production, QA manager Kleemann points to the huge demand for raw materials. Chicken eggs are delivered in liquid form in 25-ton refrigerated trucks. Every day, around 350 tons of food are produced at the Crailsheim plant. Raviolis account for about half of the production volume. The product range includes Swabian specialties, potato gnocchi, and soup garnishes.

In the 1960s, raviolis were considered purely regional, common in southern Germany. Today, this Swabian specialty is enjoyed in many variations throughout Germany. The Bürger marketing campaign is focusing attention on the diverse range throughout Germany under the slogan “Attack Germany”, specifically targeting the north and east and underpinning the potential in the growth market with figures: In Baden-Württemberg, it is estimated that each inhabitant eats 42 raviolis per year, either in soup, fried in a pan or cut into strips and baked with egg. Across Germany, the figure is only seven per inhabitant so far.

Bürger is benefiting from changing eating habits and the trend toward high-convenience products. The traditional company's diverse product range enables cost-effective, quick-to-prepare family meals. Vegan raviolis currently account for only 2% of total sales, but the growth rate is high. The company has grown steadily and strongly at its Crailsheim site over the past 20 years. Volker Fischer, Innowatech managing director and shareholder, remembers it well: "We were already impressed in 2005 when we heard that a million raviolis were being produced every day. To date, production volume has multiplied."

Growing requirements

Last year, the company made further investments and commissioned a new logistics center with a refrigeration plant in Crailsheim. With constant adaptation to demand, expansion of production, and diversification of the product range, the requirements for production and storage space have also increased. At the same time, over the past 20 years, the demand for drinking water has increased from around 800 m³ to around 1,900 m³ per day today.

This is where Innowatech technology comes into play. In 2005, the then start-up approached Bürger. Volker Fischer: „Even 20 years ago, we were firmly convinced that the production of a neutral and low-concentration disinfectant directly at the place where it is used has many advantages for the food and beverage industry. It can be highly effective microbiologically and used in many processes involving drinking and process water treatment and disinfection. Today, we know that it is the superior solution for optimizing and ensuring hygiene in relation to the quality of drinking and process water and the disinfection of surfaces and indoor air.“

Pioneering work with electrolysis

Dr. Jörg Kleemann is an experienced expert who earned his doctorate in veterinary medicine at the University of Berlin and has been responsible for quality assurance and control at both Bürger locations since 1997. As a master butcher, he also has practical experience with animal-based foods. In addition to his work in the microbiological laboratory, water technology is one of his passions. He recalls that water purification by electrolysis was still hardly widespread in 2005. The electrolysis process used by other providers had led to corrosion damage in individual cases.

Kleemann: "When we introduced this technology, it was met with strong resistance in some quarters. Nevertheless, we took the plunge at the time. It undoubtedly took courage on both sides to go against the grain and decide to use this innovative disinfection technology on a large scale in a large company." It was also a business decision to recognize the pioneering work of the then young company—and to use it for

Am Stammsitz in Crailsheim nahm Bürger 2024 ein neues Logistikzentrum mit Kältezentrale in Betrieb.

At its headquarters in Crailsheim, Bürger commissioned a new logistics center with a refrigeration plant last year.

our own purposes. "We were among the first to rely on this technology," says Kleemann. "And today, 20 years later, I can attest that this experience has been thoroughly positive, both in terms of costs and controllability."

Previous disinfection inadequate

There was indeed a specific reason for taking action at that time. The company was dealing with Legionella bacteria in the hot water and enterococci in the cold water. The chlorine dioxide-based drinking water disinfection system used to date was unable to solve the problem.

Innowatech had just hired its first technician, Georg Sauter. He installed the Innowatech disinfection systems, including dosing and measurement technology, at the entrance to the central water supply at Bürger in Crailsheim. Since then, the drinking water has been treated with pH-neutral Innowatech Anolyte® in compliance with all requirements of the Drinking Water Ordinance. The enterococci contamination disappeared quickly and permanently. After the installation of the cold water application, a second dosing line was added to treat the hot water system. Legionella bacteria have also been a thing of the past ever since.



“Twenty years ago, we were already firmly convinced that producing a neutral, low-concentration disinfectant directly at the point of use had many advantages.”

Volker Fischer, Managing Director and Partner, Innowatech

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Dr. Jörg Kleemann, Head of Quality Assurance, Bürger

With the expansion of production, another Anolyte production plant was added at the second drinking water inlet in Bürger-Werk II. Today, the company operates a total of three Aquadron plants in Crailsheim and Ditzingen and relies on membrane electrolysis cells from Innowatech in all its plants.

Development in own laboratory

The electrolysis cells are the core component of Anolyte production, and their design and composition at Innowatech have remained virtually unchanged over the years. The company has always used cylindrical titanium electrolysis cells with a ceramic membrane between the anode and cathode. Over the years, the special coating of the poles has been continuously developed in an own R&D laboratory.

Together with a few procedural refinements, it is possible to obtain the low-concentration active ingredient Anolyte® (< 0.2% active chlorine content) pH-neutral directly from the electrolysis cell. Its high purity reduces the formation of disinfection by-products such as THM, chlorite, and chlorate in disinfection applications and, at the same time, the build-up of biofilm in the treated water-carrying systems. The operators of Innowatech’s Aquadron systems use only salt tablets and water to produce the active ingredient, and the water treatment and disinfection process works completely without hazardous substances.

Virtually no wear and tear

Dr. Kleemann’s courage has also paid off in terms of operating costs. None of the Innowatech electrolysis systems have required new electrolysis cells during their service life to date. If deposits form on the membranes used, the cells can be cleaned. This has only been necessary for two cells in the past 20 years. The few wear parts in the Aquadron systems are checked by Innowatech service technicians during regular maintenance and replaced if necessary. Process-critical components that directly influence the quality of the Anolyte active ingredient are given special attention during the inspection.

Roland Klein and Jochen Kolb are responsible for operational technology and all water treatment at Bürger. In addition to the electrolysis systems, they also look after reverse osmosis and water softening systems,

cooling water systems, and the production facilities for raviolis and pasta. “The technology has to work reliably,” says Klein, „and if a malfunction occurs, we need a quick response from the service team. That’s how it is with Innowatech.“ Klein and Kolb emphasize the ease of use of the Anolyte disinfectant and its on-site production. Klein: “We don’t use any hazardous substances, we don’t need protective clothing, and we no longer need annual hazardous substance training.“

Bürger continues to place its trust in Innowatech and intends to invest further in ECA technology in areas where there is room for optimization. “It’s a sensible hygiene concept that we are happy to recommend,” says Jörg Kleemann.

Drinking water quality guaranteed

Conclusion: Many foods come into contact with water during processing. Legal regulations usually only allow the use of water that complies with drinking water regulations. Innowatech Anolyte® is approved for drinking water treatment and protects drinking water throughout the entire pipe system against microbiological contamination.

Thanks to its high stability and excellent effectiveness in breaking down/preventing biofilms, Innowatech ensures drinking water quality even in kilometer-long drinking water networks and at the most remote extraction points. Sensory influences on food can be ruled out. Anolyte helps to safeguard production processes, increases product safety, and supports the optimization of process steps. The optimal concentrations of anolyte for these applications are almost always compliant with the applicable national and European drinking water regulations. ■

Teigtaschen sind natürlich keine Erfindung aus Schwaben, die „Thai-Maultaschen“ von Bürger aber schon.

Raviolis are not, of course, a Swabian invention, but Bürger’s “Thai Maultaschen” are.



Foto: Innowatech, Bürger