

HIGHLIGHT



GRUNWALD's customer magazine no. 58 / March 2024

Exhibition brochure for
ANUGA FoodTec
Extra thick!

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GRUNWALD-FOODLINER 6.000 UC-T
supplied to Bayernland eG

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"GRUNWALD DAIRY DAYS"
in Wangen

Editorial

Even though we are well and truly into the new year, I would like to wish you, dear readers, a happy, healthy and prosperous new year on behalf of the GRUNWALD team. We hope you had a good and successful start into the year 2024!

This year there is a busy schedule with exhibitions and events. We are looking forward to numerous meetings and many face-to-face discussions. **ANUGA FoodTec** in Cologne that begins on 19 March will be the first opportunity for meetings and exchange of information. Alternatively, you can meet us in Nuremberg in September at the slightly smaller and "more relaxed" Fachpack exhibition that is always highly frequented. In addition, we are going to attend exhibitions in Australia, the United States and other European countries. We will keep you updated on our participation in trade shows and events on our website and social media channels.

Speaking of exhibitions, we report on one of our very personal exhibition highlights in 2024 on page 17 – even though this will take part much later in the year – the **"GRUNWALD DAIRY DAYS"** in Wangen im Allgäu in autumn. At this in-house exhibition, we are going to show a wide range of new and interesting developments resulting from our research and development work and give visitors of this in-house exhibition an insight into current trends and technical developments of format flexible GRUNWALD cup and bucket filling machines. For some new visitors, the "GRUNWALD DAIRY DAYS"



may also offer a good opportunity of getting to know our new technical centre – unless you have already been there yourself to do some research work and trials. Please read our detailed report on the new **GRUNWALD development centre** on pages 11 - 13.

This edition comprises 20 pages packed with reports on projects, further developments of GRUNWALD filling machines and visionary machine concepts.

All of this is always in line with the customers' needs for high machine availability, quick format and product changeovers, cost optimisation and practical relevance, as well as the simple operation of technically sophisticated filling machines.

We look forward to a successful collaboration with you in 2024, but above all, we look forward to inspiring both, existing and new customers with GRUNWALD filling machines.

Yours
Ralf Müller
and the GRUNWALD team

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Cover picture:

View of the castle ruin Falkenstein near Pfronten located at a height of 1,277 m. It is Germany's most altitudinous castle ruin. Since a viewing platform was mounted in 2005 visitors of the castle ruin can catch an unforgettable panoramic view over the foothills of the Alps.

This photo was taken during a hike on the Breitenberg near the Austrian border.

Photo: Edi Stölzle

Publisher's imprint

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4



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Filling exigent products

The 4-lane inline machine GRUNWALD-FOODLINER 6.000UC-T for customised filling at maximum hygiene level



Plant Manager Daniel Ulowetz (left) and GRUNWALD Project Manager Markus Berte after start of first production

Bayernland eG is a cooperative founded in Nuremberg in 1930. With an annual production output of more than 300,000 tons of dairy products (within the Bayernland group) at home and abroad, Bayernland is a leading producer of dairy products. Their main focus is the world-

wide distribution of their dairy products that are produced in their own production facilities or in the dairies joined in their cooperative. Certified quality is Bayernland standard, thanks to their constant quality controls and hygiene measures. ▶

Photo below:
GRUNWALD-FOODLINER 6.000 UC-T
in the Bayernland eG factory

Customised inline machine

The long-standing cooperation between Bayernland eG and GRUNWALD reflects a successful partnership that considerably exceeds normal business relationships. It is a partnership based on trust, common goals and communication on an equal footing. This results in innovative and customised machine concepts that are paving the way for a successful future of both companies.

In 2023, GRUNWALD delivered an inline machine in ultraclean design. This cup filling machine comes with maximum hygiene standards and is featured by operator-friendly and simple operation due to its tunnel system in the filling area in combination with automatic

interior cleaning and UV(C) sterilisation by means of high-performance radiators developed by GRUNWALD. This UC equipment is the new standard for GRUNWALD filling machines to fill exigent dairy and food products.

This highly efficient sterilisation using pulsed-light high-performance UV(C) radiators is a **certified sterilisation procedure free of peroxide**. Completely working without chemicals and thus also without peroxide is the greatest advantage of this guaranteed reliable sterilisation procedure certified by several independent German institutes. In addition, it does not have negative effects on the environment or healthiness of the personnel resp. operators of the machine. This also solves the problem of chemical overdosage! ▶



Handling of innovative packaging materials

The versatility of this machine allows for handling sealing film from the reel as well as pre-cut aluminium or plastic seal lids. It is a future-proof and versatile machine to handle many kinds of packaging materials, such as PP and cartons, efficiently and meets the requirements of ever-evolving packaging technologies.

We would like to thank Bayernland eG for the excellent cooperation and many years of mutual trust. This cooperation has contributed to the successful implementation of projects and achieving common goals. ♦

Features of the 4-lane FOODLINER 6.000UC-T

- Product: cream cheese and dairy products
- Cup size: rectangular cup 120 x 80 mm, different heights
- Cup storage with low level magazine with a loading height of 1,150 mm
- Hygienic denesting of the cups stacked upside down
- Particle suction with cup turning and ionisation
- 2-phase cup sterilisation by means of pulsed high performance UV(C) radiators
- Guaranteed sterilisation rate of $\geq \log 4$
- Filling station type EASYCLEAN (aseptic design) in CIP design and pressure superposition in the double-walled hopper
- Pre-cut foil seal lids incl. UV(C) sterilisation
- Sealing film from the reel incl. UV(C) sterilisation
- Snap-on lid station
- Headspace gas injection with remaining oxygen content of $\leq 0.5\%$
- Without reduction of speed (40 cycles/min.)
- Leak test control
- Lifting onto 2-lane outfeed conveyor, incl. discharging station
- Clean air tunnel incl. automatic interior cleaning
- Management system for production data "Industry 4.0"



Cup loading station;
the cups are stacked upside down

Visionary and highly flexible filling technology

Current trends and technical developments for format flexible cup and bucket filling machines to be shown at the GRUNWALD ALM in Cologne

"This is the place to be!" is the symbolic statement of Managing Director Ralf Müller on the machines to be exhibited and what you may expect at the almost legendary green GRUNWALD ALM.

Two rotary-type GRUNWALD-ROTARY cup fillers will be the centre of attention at the 170 sqm booth in **hall 7.1 | B-010**. Equipped with state-of-the-art and future-oriented filling technology we will be showcasing trends and technical developments that are in high demand among customers in the dairy industry and are well received due to their great flexibility. These are rotary-type cup fillers that allow our customers to react very quickly and flexibly to the diverse requirements of the markets.

Exhibition machines

The 3-lane rotary-type machine **GRUNWALD-ROTARY 20.000UC** was designed for filling dairy products. Its ultraclean technology easily meets maximum hygiene

requirements. This machine can handle both cups of standard sizes and 1 kg buckets with handles. Depending on the product, the production speed amounts up to 7,500 cups/h

The second, technically sophisticated and high-quality filling machine is the 4-lane rotary-type machine GRUNWALD-ROTARY 20.000E. "E" stands for "extra class" in the development of our cup fillers.

Performance and flexibility are its outstanding features. Depending on the product, up to 10,000 square or round cups can be handled. The machine concept considers the filling of liquid to pasty dairy products such as yoghurt and fruit preparations. By using a mobile chamber filler this machine can be extended to fill non-pumpable, dry products, such as cereals and toppings, with a filling volume of 20 – 60 ml. This chamber filler can be disconnected very easily from the docking station of the GRUNWALD-ROTARY 20.000E in a few simple steps and cleaned externally. The machine also considers a free space to retrofit the machine for "swirl" filling to allow for absolute and future oriented flexibility of this machine concept with the filling of products.

Strategic and visionary thinking

In Cologne, the GRUNWALD trade fair team will also present the corresponding research and development work that you can expect in 2024. For further information, please continue reading on page 17

Get excited with us for ANUGAFoodTec and see you again in **hall 7.1 | B-010** on our GRUNWALD ALM in Cologne.

By the way - visitors to our booth can participate in our raffle for an exciting stay during the first weekend of July 2024, including a dreamy hot air balloon ride! ♦



The knowledge of the future. The experience of decades.

11 questions to DI (FH) Andreas Ebner, technical coordinator and project manager of Ennstal Milch KG, the pioneer in technology for the production and filling of beverages and food



Photo shooting in front of the GRUNWALD-ROTARY 20.000UC to finalise the project: Andreas Ebner, technical coordinator and project manager at Ennstal Milch KG (in the middle) with Florian Kolb, Team Manager Linear Machines (left) and Matthias Gottwald, Project Manager, both from GRUNWALD GmbH



Ennstal Milch KG was founded in Stainach-Pürgg/Styria in 1902. It has about 300 employees and an annual turnover of approximately 100 million euros and is one of the 10 biggest dairies in Austria. They process 85 million kilogrammes of milk each year. The range of products comprises milk-based, water-based and fruit-based beverages, desserts and spreads made of curd cheese or yoghurt and soft cheese. These are the facts and figures. It needs to be emphasised that the complete range of products is also available in organic quality.

What visions do you have for the production of organic products?
Andreas Ebner: The development of bio innovations with added value.

What is your assessment of the future of plant-based milk alternatives and vegan products Ennstal Milch also offers?
Andreas Ebner: The product range of plant-based milk alternatives already represents an essential share in the market and tends to grow continuously. ▶



Company building Ennstal Milch KG

Ennstal Milch KG purchased a 4-lane (UC) rotary-type cup filling machine **GRUNWALD-ROTARY 20.000UC** last year. It is a filling machine equipped with a UC hygiene tunnel and integrated cleaning, offering almost unlimited flexibility. It was shown as a world first at our stand at Interpack 2023 in Düsseldorf. Thank you for giving your approval to show this extraordinary filling machine to the visitors at this exhibition.

What were the main reasons for making an investment in this fully-automatic ultraclean filling machine?
Andreas Ebner: Focus was set on format flexibility and at the same time increase in output compared to our existing machines. The handling of different packaging materials becomes more and more important. Reproducibility is the basis for consistent quality. Another main reason was the basic decision to stop using hydrogen peroxide.

What challenges or concerns did you face when implementing this filling machine?
Andreas Ebner: The major challenge was the planning and regrouping of production in order to create a sufficient time frame for the integration of the new machine. This could be successfully realised due to the personnel's commitment and support for this project. At the beginning the doubts referred to the pure sterilisation by means of UVC as Ennstal Milch did not have any experience in this field.

You had sent us a photo of the machine hanging from the crane. This photo almost speaks volumes (see photo on the left). What challenges did you face regarding the machine ingress?

Andreas Ebner: During the ingress period the production with the adjacent machines was stopped. It was our aim to reduce the downtime of the machines to a minimum. We therefore had to decide in advance on the components to be disassembled from the machine and within the factory to guarantee smooth ingress of the machine.

The ROTARY 20.000UC fills a broad range of products – clean natural yoghurt and yoghurt with fruit, skyr, spread but also vegan products.

What are the experiences from production with the new cup filling machine?
Andreas Ebner: There is a high level of acceptance for the machine among our personnel. New employees get familiar with the machine after a short training period thanks to its operator-friendliness.

As expected, short changeover times are feasible. Thanks to integrated monitoring systems the quality control and thus the product safety is increased. ▶



Ennstal Milch KG is one of the region's largest employers. How is Ennstal Milch affected by the general shortage of skilled labour?

Andreas Ebner: Like most other Austrian companies Ennstal Milch is also affected by the shortage of skilled labour.

Our HR department is continuously working on new recruiting concepts and sets the focus on the development of existing personnel.

Ennstal Milch KG attaches great value on sustainability and local sourcing.

What measures does the company take to implement these values?

Andreas Ebner: In the past, we had set the focus on various issues. In 2022, Ennstal Milch received the Energy Global Award Styria and subsequently the Energy Global Award Austria for the project to utilise waste heat using a high-temperature heat pump.

We are currently in the certification process for an environmental management system according to ISO14001.

Finally, three short and sweet questions. One of the slogans of Ennstal Milch is: "Rooted in the region, successful on the global market".

At which place do you feel rooted?

Andreas Ebner: In the mountains of Ennstal.

Which personality would you like to drink a glass of milk with?

Andreas Ebner: With my son. You should not forget your family in everyday working life.

What drink do you start the day with? Is it coffee, tea or milk?

Andreas Ebner: A glass of water followed by a cup of coffee.

We thank you very much Mr. DI (FH) Ebner for taking the time for this interview and, above all, for the trust you have placed in GRUNWALD. We are proud to be able to provide Ennstal Milch KG with our expertise in machine technology and to supply them with our cup and bucket filling machines and look forward to a continued cooperation. ◆

Photos taken during the commissioning of the 4-lane (UC) rotary-type cup filling machine



GRUNWALD NEWS

New development centre with state-of-the-art technology in hygiene, packaging and quality control



The new development centre on the GRUNWALD premises features two laboratories for testing packaging materials and for filling trials, as well as a store room for the complete test equipment.

In 2023, we built a spacious technical centre with an area of 150 square metres. This technical centre and the advanced equipment of our development departments reflects our high commitment to hygiene, quality control and packaging.

This new development centre enables our customers' product designers and development engineers to examine, test and evaluate packaging materials. It offers GRUNWALD the opportunity of finding innovative solutions and being actively involved in shaping the future of the packaging industry.

It does not matter whether we are handling an order for a new cup filling machine or a bucket filling machine – our technical centre offers ideal conditions for pioneering developments and thus for a safe commissioning and reliable start of production.

The investment of approximately. EUR 350.000,00 to build this technical centre shows the importance of careful planning. The estimated total investment, including test equipment and quality control devices, added up to approximately EUR 1 million over the years. ►



View into one of the laboratories of the new GRUNWALD development centre for filling trials and tests of a wide variety of products

Hygiene

Filling systems CIP / SIP

We have a multitude of modern, hygienic filling systems to guarantee ideal conditions for filling products. This comprises:

- The **SERVODOS filling system** with 5 servo axes, that can be used for testing both pumpable products and products that are difficult to pump. Swirl products can be tested as well.
- The **FLEXODOS filling system** for NON-pumpable products, such as free-flowing products.
- A **viscosity measuring unit** to make sure that the product tested corresponds to the original products.
- A **kettle** with a capacity of 300 litres with an agitator that is used for filling trials with hot filled products.
- Three **3D printers** to produce food-approved plastic parts at short notice, such as filling nozzles for product presentations and to optimise filling characteristics quickly and at low cost.
- Special seals that consist of soft, flexible and food-approved materials (elastomers) also can be "printed" at short notice, at low costs and in the perfect fitting size.
- A **fully-automatic CIP system** that guarantees 100 % quality control of cleaning prior to delivery.
- In addition, we have a **steam aggregate** to carry out the quality control of dairy fillers in SIP design prior to delivery.

Packaging material sterilisation

For years we have been setting new standards for the sterilisation of packaging materials with our UV(C) technology. However, this is not a reason to rest on our laurels.

Our **state-of-the-art, high-performance (pulsed) UV-C test station** is the centre of attention for the sterilisation of packaging materials. It is used to carry out representative sterilisation tests with small 20 g containers up to big 20 kg buckets which are then analysed by renowned institutes such as the Fraunhofer Institute or SGS Hamburg. This cooperation guarantees extensive and reliable data on sterilisation rates. This is especially important when handling new packaging materials without established sterilisation benchmarks.

We have several residual oxygen measuring devices to reliably measure the guaranteed residual oxygen value.

Packaging materials

Our new technical centre offers an ideal environment to expedite the development of new packaging materials and simulate filling processes. In doing so, we repeatedly achieve pioneering progress and milestones in the development of filling and packaging technology.

This **1-lane, fully-automatic rotary-type machine** is the ace up our sleeve to carry out extensive and detailed long time tests with our customer's packaging materials that are often new, be it PP seal lids or lids of other materials. These tests guarantee reliable results and help to simulate and understand the properties of the materials under real conditions prior to start of production.

In addition, we offer our customers **manual bench top sealers** that can handle a multitude of standard container sizes for laboratory tests with new packaging materials. These bench top sealers allow for carrying out extensive and detailed long-term tests and facilitate experimentation, as well as fine adjustment during the product development process.

Quality control

Our technical centre also comprises a professionally equipped measuring station that allows for a detailed quality control of all individual parts. There is a **surface roughness depth gauge** and an endoscope to check and document pipe welds.

In order to push the development of new packaging materials and allow for their reliable assessment, our **burst pressure gauge** checks the pressure on and in the packaging.

Our three 3D printers that are almost constantly in use

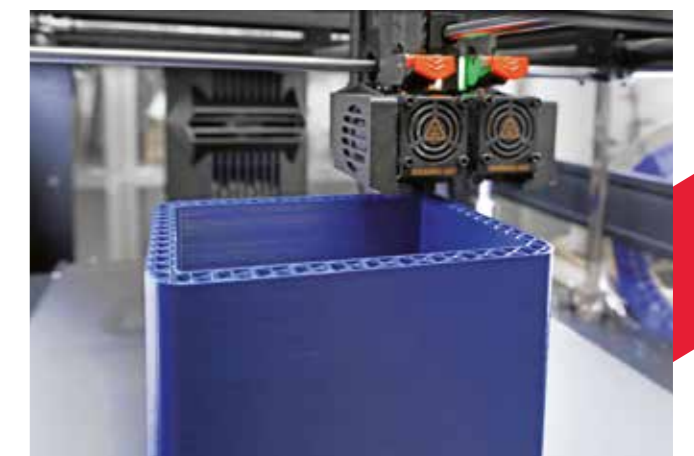


A **measuring device for precise recording of the tear-open force** provides accurate results so that a uniform peeling characteristics across the whole cup surface can be reliably recorded and the data recorded can then be evaluated.

In a world where requirements are changing rapidly, we offer our customers technically sophisticated and flexible equipment to develop their products. We support our customers with our knowledge and our creativity to enable them to develop and adapt their products to consider important issues, such as sustainability, use of local raw materials, healthy nutrition and attractive pricing. But above all, we do everything we can to ensure that nothing is left to chance regarding design and manufacture of the machine, its installation and subsequent production!

Our customers may be assured that a reliable partner will be available for any challenge that may emerge during the project and the development of a new packaging solution: GRUNWALD. ♦

One of the 3D printers printing a prototype required for tests



A powerful combination!

Simultaneous development of new packaging material and manufacture of rotary-type cup filling machine



GRUNWALD-ROTARY 6.000/2
for filling delicatessen products
in rectangular PP cups



It is certainly impressive that a delicatessen manufacturer produces spreads and snack spreads, vegetables for spreads and wrap fillings with approximately 110 employees in the centre of Hamburg's St. Pauli. However, taste and high quality of the products from Delikant Feinkost GmbH are just as extraordinary. Delikant Feinkost GmbH's customers comprise well-known companies from the system catering sector such as bakery chains, mineral oil companies, coffee shop chains, snack chains, sandwich producers, airline caterers and wholesalers.

When consumers eat sandwiches or baguettes from bakeries, supermarkets or petrol stations, it is quite likely to feature spread produced by Delikant Feinkost GmbH in Sternstraße in the Schanzenviertel.

The enquiry we received in summer 2022 included some challenges that proved to be quite tricky! One of these challenges was the tight schedule. Production for this rotary-type machine had been scheduled for spring 2023. Therefore the expertise of our development engineers and close collaboration with long-standing suppliers was vital during the entire project. ▶



Filling station with integrated weigher with automatic weight readjustment

Project engineering

The planning was extremely smooth and cooperative. All requirements with regard to location and production facility were taken into account and the machine concept was integrated in the factory layout. Local conditions of the existing production and ingress of the machine were discussed and planned just as efficiently. In addition, in view of a planned move to a new building at their future location in Rellingen in Schleswig Holstein, a forward-looking line concept was prepared.

The machine concept

Delikant Feinkost GmbH produces many different products everyday. We recommended the GRUNWALD rotary-type machine concept with mobile dosing systems for the fully-automatic filling of delicatessen products (spreads and fillings for bread snacks) in view of frequent product changeovers. All product-specific setting values of the dosing systems were stored in the control of the cup filling machine. This allows for several identical dosing machines alternately without the need for readjustments. In case that several MOBIFILL dosing systems are used alternately, the product changeover can be carried out within approximately 3 minutes. Exchanging the dosing systems means all product contact parts are also exchanged simultaneously. This guarantees allergen-free production.

Being equipped with a **hopper for small volumes** this rotary-type machine allows for gram-precise filling of all products until the last cup has been filled. In addition, this gram-precise filling is supported by an integrated **weigher** with automatic weight readjustment and individual servo drives for the dosing pistons.

Like us, our customer is convinced that the GRUNWALD technology can also work without evacuation. This is

the reason why they decided to go for the **gas flushing system** developed by GRUNWALD. Depending on the product this system is activated according to requirements in order to seal filled cups at a remaining oxygen content of $\leq 0.5\%$ and does not have an influence on the performance of the cup filling machine at all. This new gas flushing system guarantees longer shelf lives of the products. Freshness and quality of the products is maintained and undesired product discolouration is avoided.

Rotary-type machine with potential for the future

At the time the order was placed many products were filled in buckets in semi-automatic operation. The technical challenge was to allow for filling the buckets from the side which was guaranteed by a special feature on this rotary-type machine. This supplementary equipment offers enormous comfort and saving of time as smaller bucket batches (5 kg and 10 kg buckets) can then be filled with the same product in fully-automatic operation and according to requirements after completion of the cup batches. The changeover of the machine can be carried out in just a few simple steps. A separate cup filling station is not required, consequently additional cleaning time is avoided.

The handling of several packaging material sizes was another requirement for this machine concept. For this purpose, this rotary-type machine is equipped with a cutting/sealing station to seal cups and buckets with peelable film from the reel. In addition, the format changeover can be carried out without tools within 10 – 15 minutes. But this is a standard feature on GRUNWALD machines anyway. ▶

The concept of a 2-lane rotary-type machine GRUNWALD-ROTARY 6.000 with two mobile dosing systems GRUNWALD-MOBIFILL allows for an extremely flexible and quick production of the existing product range. The necessary frequent product changeovers can be carried out very easily and quickly in the daily production process. In addition, it offers the option to integrate further container sizes into production in the future.

Development and installation just in time

In cooperation with their packaging material supplier, Delikant developed a completely new, square B2B cup (130 mm x 130 mm) without IML print. This cup should be closed with sealing film and snap-on lid as well as alternatively with tamper evident snap-on lid. Detailed experiences with the fully-automatic handling of this rectangular PP cup were not available at the time of the order placement which meant that this new packaging material had to be developed in parallel with the production time of the cup filling machine. Completion and availability of both machine and packaging material at the same time for the planned production start in spring was a challenge.

All our customers can rely on our expertise and our many years' experience with a wide variety of packaging materials when facing such a challenge. So, it seems

to be logical that GRUNWALD get involved in the development work in order to push the work with a team of experts from three companies.

In the end, the project ran smoothly! We closely supported Delikant Feinkost GmbH with the development of the packaging materials so that production with the new machine and the newly developed packaging materials could be started on time.

Our production shop was provided with the technical details for the manufacture of the machine parts in time to allow for the containers to be closed with tamper evident snap-on lids and film from the reel.

Replacement of the old machine and ingress of the new rotary-type machine was successful as well. After the old machine had been switched off production with the new machine and the new packaging material could be started within one week, just in time. This concept offers our customer a flexible cup filling machine to fill their various delicatessen products. It is a future-proof investment to optimise their production process.

We are glad to have successfully handled this order just in time in collaboration with all parties and look forward continuing to be a reliable partner for dosing – filling – packaging. ♦



Red Asian coleslaw
500 g



Curry chicken with
pineapple, 500 g



Bruschetta, 500 g



Vegan avocado cream
500 g



Best remoulade, 1 kg



Basil cream, 1 kg



Dijon cream, 5 kg



Chipotle cream, 5 kg

GRUNWALD NEWS

Sensational machines to be exhibitet at the "GRUNWALD DAIRY DAYS" in autumn



GRUNWALD looks forward to an exciting and busy 2024 with confidence due to the development of visionary machine concepts.

During ANUGA FoodTec in Cologne the trade fair team will provide information about our research and development work, that can be expected in 2024, including new machine concepts that will be presented during the "GRUNWALD DAIRY DAYS" in Wangen in autumn. The following five highlights of filling technology will be on display:

Two UNIVERSAL high-performance rotary-type machines

For the first time a **universal high-performance cup filler in ultraclean design** will be shown that has a performance which has never been achieved with a rotary-type machine: 21,000 single cups/h before. This machine can handle both single cups and different multi-chamber cups. Further details are as follows: 2x6-lane design, packaging material sterilisation ≥ LOG 4, aseptic design and the option of steam sterilisation for filling various dairy products in single cups and different multi-chamber cups.

In addition, the following bucket filler will be another highlight of our exhibition: a **universal high-performance rotary-type bucket filler in ultraclean design** with packaging material sterilisation ≥ LOG 4,

aseptic design and the option of steam sterilisation for filling pH neutral dairy products. The filling performance of this 1-lane bucket filler is up to 1,200 buckets/h resp. 7,800 kg/h with 5 resp. 10 kg buckets.

Three high-performance inline machines

From the further development of inline machines an **8-lane inline machine** with integrated packer in ultraclean design with packaging material sterilisation ≥ LOG 4, aseptic design, steam sterilisation for filling various dairy products will be shown.

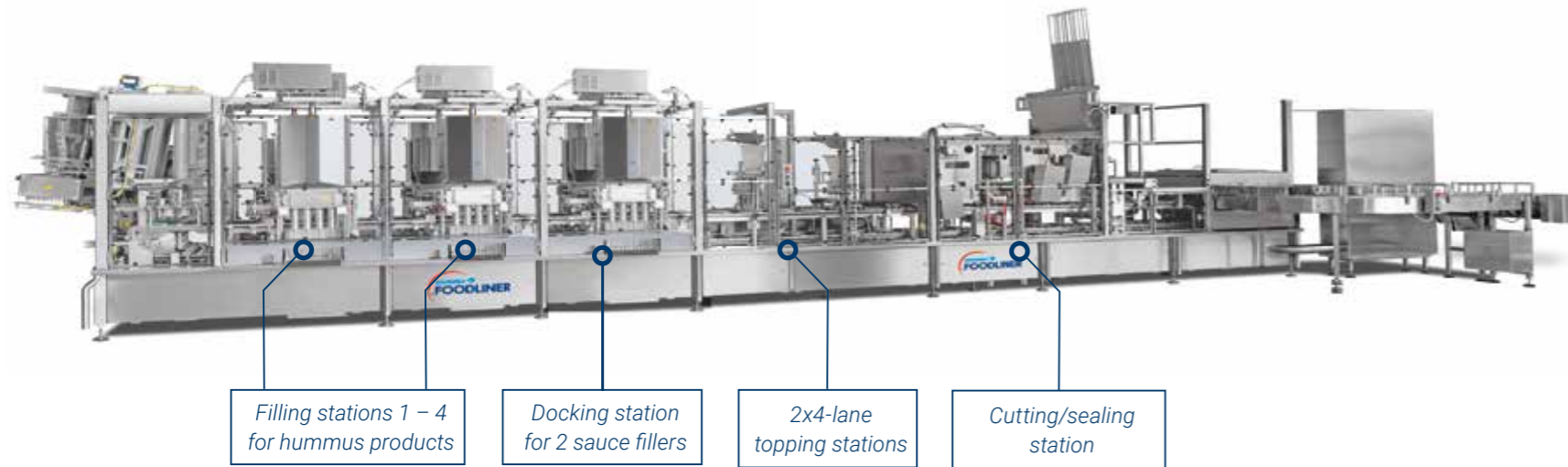
In addition, this machine considers ergonomic storage systems for packaging materials and maximum storage time for user friendly one-man operation. The production speed is up to 20,000 cups/h.

Two high-performance inline machines with production speeds of up to 40,000 cups/h for the accurate filling of different dairy products will be on display. They are in 2x8-lane design and are equipped with an integrated packer as well as packaging material sterilisation systems.

We will inform you in due time via social media and in the next issue of our customer magazine about further details and the exact date of our "GRUNWALD DAIRY DAYS" in Wangen. ♦

Efficiency covering the complete machine length

Inline cup filling machine GRUNWALD-FOODLINER 6.000 offers the solution for mixed cartons packed with varied assortments



GRUNWALD-FOODLINER 6.000 with eight fillers allowing for almost unlimited flexibility in terms of filling and a wide variety of toppings

Food producers are facing enormous challenges to meet the demands of the supermarkets, including increasing labour cost and a shortage of skilled workers. Suppliers of popular hummus products who deliver their products to discounters or trade chains know the growing requirements for different configurations to accommodate assorted products in mixed cartons. In addition, not all production lines are suitable to meet these extensive specifications. Consequently, the producers have to pack their products by hand or resort them in the chill room which incurs high labour cost. Using a sorting, repacking and commissioning machine as an alternative is subject to high investment and the necessary space in the production hall must be available.

GRUNWALD technology offers the solution!

The cup filling machine GRUNWALD-FOODLINER 6.000 combined with eight different fillers is the appropriate solution for filling hummus of different flavours, packed in mixed cartons in different assortments. This 4-lane inline machine allows for a very flexible and market-orientated production and packaging of hummus products.

Inline machine with any feasible feature!

This GRUNWALD-FOODLINER allows for an extremely flexible production in alternating operation with its four hummus fillers. Multi-flavour filling (4 flavours) offers the producers the necessary flexibility for the combination of assortments and the number of mixed cartons. The sealed cups filled with different flavours are sorted into the trays (mixed cartons) directly on the outfeed conveyors by a packaging robot according to the requirements and specifications of the discount stores or retail chains.

This means each mixed carton can be packed with the desired assortments on the machine in an economic, quick and efficient way. For example, the following assortment would be possible: four cups with traditional hummus, two cups with beetroot hummus, four cups with chilli hummus and two cups with chocolate hummus.

Thanks to this machine concept, the subsequent manual and time-consuming re-sorting of the hummus cups in the mixed cartons is no longer necessary. ►

In addition, secondary packaging (cardboard packaging) is reduced and less personnel results in considerable cost savings.

Are you interested in an even more versatile production?

Yes of course! Additionally to the four hummus fillers our customers can integrate two further fillers in this inline machine. This guarantees maximum versatility in production and there is a real diversification in the mixed cartons.

Two additional fillers can be used for post dosing various toppings on the different types of hummus – e. g. red topping on green hummus and green topping on red hummus. Furthermore, the customer can choose whether only a herb topping is dosed on certain products or additionally an exact number of chickpeas with the chickpea filler. The final customer will be pleased because, as we all know, a treat for the mouth... a treat for the eyes.

Conclusion

This filling machine is suitable for producing all combinations known to date that are required by the supermarkets. Despite its complexity it was important for us to offer simple operation so that the machine operators can easily change from one packing scheme to another. In addition, we paid attention to guarantee easy access to the 8 fillers to ensure easy cleaning and handling.

Depending on the fillers and toppings selected by the customer, up to 10,000 cups/h can be filled on this filling and packaging machine. Additionally, we would like to mention that the GRUNWALD gas flushing system could easily meet the customer's requirement for a remaining oxygen content of < 1 % in the sealed cups to guarantee the product shelf life demanded by the customer.

By the way – this machine concept was so convincing that our customer purchased two of these inline machines. These two FOODLINER machines now replace three tray sealer lines. ◆

Manifold toppings for hummus



Sender

In case of any changes please return to:
reply@grunwald-wangen.de
Fax: +49 7522 9705 999

GRUNWALD-HIGHLIGHT

Please inform us of any changes to enable us to update your contact details.

- our address has changed
- the contact person has changed
- further contact person(s)
- We would like to receive the GRUNWALD-HIGHLIGHT in digital form (PDF).

Family name | first name: _____

Position / job title: _____

Company: _____

Town/City | Postal Code: _____

County: _____

E-Mail: _____

Phone: _____