The Anuga Food Tec Trade Fair 2012 which was held in Cologne, Germany between the 23rd-30th March proved to be extremely successful. Trepko exhibited a range of their new innovative filling and packaging machines to a large number of visitors, this has enabled us to establish both new contacts and strengthen our existing client base. The visitors were mainly from the dairy and confectionery sectors, however there were also a number from the chemical industry. More than 170 companies have asked for machinery quotations and through these we have had orders placed for complete packaging lines and other dedicated solutions.

During the show we have exhibited a variety of packaging systems offered by the Trepko Group.

**COMPREHENSIVE SOLUTIONS**

Complete packaging lines:
- A packaging line for yoghurt comprising of a 246KS (6-lane) filling and closing machine for pre-formed containers, a tray erector for the forming and gluing of trays (720 Series) and a pick & place system for lifting and placing the containers into the trays (760 Series),
- A packaging line for margarine comprising of a 244KS (4-lane) a filling and closing machine for pre-formed containers, a collection system (Stacker), a wrap around machine for grouping and packing products into cartons (710 Series) and a gantry palletizing system.

**CUSTOMISED INNOVATIONS**

Interesting solutions, technical and technological innovations were presented in other machines, such as:
- An ULTRA-CLEAN in-line machine for multi-layer-desert filling & closing of pre-formed containers (106KSP),
- A foil from reel dispenser for daisy-chain precut foil-lids, mounted on a one-lane rotary machine for filling & closing of pre-formed containers (211 KS),
- A machine for filling & wrapping of small bricks 10-25g (PMG-4).

In addition to the packaging lines at the stand visitor were able to see a range of new machines and solutions:
- The high-speed machine for brick forming and wrapping (type 822) which with a 30% higher capacity than the former generation represents a new highly optimized generation of these machines in our product range,
- The Form, Fill and Seal machine designed

**NEW PRODUCTS**

Do not miss out our innovations!

**ANUGA FOOD TEC**

24th - 27th March 2015
Cologne, Germany

All of TREPKO team thank you for visiting our stand during the fair and looks forward to our further co-operation.
Dear Readers,

It is my privilege to present you with the first issue of the TREPKO magazine.

TREPKO has been present in the packaging machinery market for decades and its success results from a truly close relationship with our customers throughout the world. Today we would like to show not only our products and their applications, but also the way we work in order to meet the growing requirements of the market.

The secret behind the TREPKO’s story is quite simple, yet demanding. Listening to our customers’ needs and implementing them in our products and services has always been the basis for our development. On the other hand, for many years we have observed how our innovations could also act as inspiration to many of our customers.

Therefore we would like to take this opportunity and present to you our latest progress and plans for the future.

Our first magazine includes information on product innovation, but also illustrates the close cooperation with the users of the TREPKO machines. We would like also to invite you to meet us at the important market events during 2012, as well as in our new Conference & Exhibition Centre in Gniezno. Since our competitive edge is based on the competence of our employees, our magazine will profile a number of our outstanding colleagues.

I hope you will enjoy reading the first issue of our magazine. As we are always open to suggestions and recommendations, we will be glad to hear your opinions which you are welcome to share with your contact persons in our organisation or just by sending us a message at info@trepko.com.

The whole TREPKO team is looking forward to hearing from you soon.

Best regards,
Jesper Bjørn Hansen
CEO
TREPKO A/S - Denmark

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The TREPKO GROUP had a fruitful participation in the 10th FOTEG (International Trade Fair for Processing Technologies) ISTANBUL, TURKEY 2012 exhibition.

During the exhibition, 6-lane rotary filler - type 246 KS and brick forming & wrapping machine for small bricks – type 812 with a grouping unit were shown under operation mechanically.

For the very first time, the Trepko Group’s Swiss partner, EGLI AG, which is specialized in butter & margarine processing technologies and machinery, was also a co-exhibitor during the entire show. During the exhibition, the EGLI continuous butter making machine - type EKB 1000 was also exhibited.

There was particular customer interest in small and medium scale complete butter processing & packaging lines in which EGLI AG and the TREPKO GROUP aim to cooperate together in order to supply turn-key production lines.

Additionally, there were a number of inquiries/requirements for packing small (mini) bricks of different products. This is all possible due to the recently developed Trepko small brick forming & wrapping machines, type 812.

Once again, we take this opportunity to thank everyone who paid us a visit during the exhibition.

The Trepko Team is looking forward to cooperate on future projects in order to serve your requirements.
Trepko offers a number of specialized packaging systems aimed at cleaning the empty package and sterilizing it before the final fill and seal. The shelf life of the product relies strongly on the continuous efficiency of these systems, for which reason great attention is paid to the selection, design and application of these systems no matter if the aim is to reach a ULTRA-CLEAN standard or simply a wish to optimize the hygiene within a certain economical budget.

A pre-filter and a absolute filter (HEPA)
Within the dairy industry the first and most popular system applied, ensure the packing of the product to be performed in an environment of clean air. For filling under optimum hygiene the product zone is thereby covered by a laminar flow created in a sterile air cabinet covering the first position after the cup dispense until and including the heat sealing station. The cabin is equipped with two main filters: a pre-filter and an absolute filter (HEPA). The sterile air cabin meets the highest hygienic demands, as the filters do not let particles larger than 0.5 mm through. A fan located between the filters blows clean air (fulfilling class 5 according to standard ISO 14 6440-1) into the product zone of the machine.

UV radiation
The risk of introducing contaminated containers in to the packaging area is often reduced by use of UV sterilisation lamps. The important parameters for the efficiency of the UV radiation are the distance from the irradiated object and the spread of radiation onto the exposed surfaces. When radiated from the opening, the surface of a 130 mm tall cup is exposed to only few of the UVC rays necessary to remove bacteria from the cups walls and particularly its bottom; thereby it loses its bactericidal features. Trepko eliminates this risk by offering a special system for “tall-cup” radiation. The system allows the lamps “immersing” into the package during the machine’s operation cycle, thereby ensuring that UVC rays reach not only the bottom with high intensity but also the side surfaces.

Deionization of the cups
Another innovation that Trepko offers is the system of deionization of the cups. Deionization is the removal of ions from solid surfaces, so that impurities are easily removed from the areas of the product packaging. The efficiency of removal of static charge is increased by the flow of air. The flow of ionising air is purposefully maintained at a low level in order to save energy.

Industrial vacuum cleaner
A system for sucking out impurities from the empty packages is another system offered by Trepko aimed at increasing the product hygiene. This is done by special designed suction nozzles that “immerse” in a package during the machine’s operation cycle. These nozzles are connected with an industrial vacuum cleaner: A silent motor provides continuous operation of the vacuum cleaner, and its basic features like small size, high durability and resistance to external conditions makes it an ideal solution for splash zones and areas where dust and fine chips are generated. The system is equipped with a filter shaker that guarantees continuous suction and thereby elimination of the risk of impurities occurring in the package directly before the product is filled.

CIP cleaning system
Apart from maintaining hygiene during packaging, a growing discussion is raised concerning quality and ways of machine cleaning. A special design of Trepko machines does not leave the so-called “dead spots” of cleaning in piping during CIP cleaning. Additionally, Trepko offers seat valves on client request. Their hygienic design makes them ideal for the food industry and an integral part of modern solutions. Moreover, it is possible to fully automate and control them from the operator’s panel, thus guaranteeing safety and full control of the operation of the CIP cleaning system.

Gas flush station
A gas flush station is another element of preserving product safety, this unit is used to extend the shelf life of the product.
The operation principle can be divided into three parts. First taking place is the flushing of an empty cup with a gas mixture in order to remove oxygen from the cup. Another element of the unit is the creation of a gas atmosphere in the machine’s working area. Gas is blown in before product dosing and when the open cup is being shifted to the foil placing station. After placing of the foil onto the cup, inert gas is injected between product surface and the foil. Control of the injection time and the flow rate is completely automatically adjusted from the touch screen of the machine, and settings are stored as a part of the machines integrated recipe handling system.

**Perhydrol solution**

In its range of hygienic options, Trepko also proposes cup sterilisation through injection of a H₂O₂ solution. A perhydrol solution is supplied to the machine by the user, and then it is injected into the cups by a special spray nozzles. The amount of solution being injected depends on the cup size. On the following three stations the cups are dried with hot air until the perhydrol is totally eliminated. A special ventilation system removes vapours from the sterilisation chamber. The system conforms to the current standards concerning allowable amount and concentration of harmful substances in the package.

**Sealing control station**

Hygienic treatment of packaging and product is worth little if the final package has a leak. Trepko gives its clients a guarantee of a reliable closing due to an innovative system of checking the seal between the applied foil and the cup. A system of induction sensors detects faulty seals, and an additional system enables rejection of faulty packages during the machine’s operation cycle – without stopping it – thus maintaining capacity and effectiveness of the Trepko machine. The system thereby rules out any possibility of packages with faulty seal leaving the machine.

Time and time again, Man has been proven to be the main source of foodstuffs contamination during their packaging. Reduction of labour in production areas and elimination of human’s direct product / package contact is therefore preferred. Trepko recommends complete line automation and offers the entire system required from the product leaves the truck.

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**New packaging solution offered by the Trepko Group**

To compliment Trepko’s existing range of Cup Filling and Sealing Machines, Trepko have developed a new Form Fill Seal Machine for individual portions.

The machine represents all of Trepko’s standard design features and can be supplied with filling systems suitable for margarine and butter via a direct flow, or for jams, pastes and spreadable condiments using the more typical hopper-fed depositing systems.

Outputs range from 80-200 packs per minute, and the machine is easily size-changed via format change parts for alternative shapes of pack, and the size change-over is recipe driven.

The machine can be integrated with cartoning and box-making equipment to provide the complete packaging solution.
Innovations in brick

Trepko’s PMG machines are intended for brick-packaging of various foodstuffs. Different product supply systems enable packaging of a wide range of products including natural butter, butter with vegetable oils, margarine, tvorog, minced meat, lard, yeast etc. The PMG Series represents 40 years of experience in design and production of brick forming and wrapping machines, which combined with state-of-the-art control and production technologies provide unique solutions, thus creating the most solid product range within this type of machines on the market.

**PMG 5 Series**

*family size bricks (500 - 2000g)*

The ever-developing foodstuff market imposes new requirements competing in more and more innovative brick shapes and sizes. These needs are met by Trepko’s PMG5 brick forming and packaging machine. It has been developed with enlarged “family” packages in mind. It enables packaging of one-kilogram and irregular half-kilogram bricks with the following dimensions:

- length: from 100 to 240 mm
- width: from 40 to 100 mm
- height: from 40 to 100 mm

The versatility of the machine opens up the possibility of packing bricks within the wide range of 250-2000 g, which enables a shortening of the return-on-investment period.

**PMG 4 Series**

*small bricks (10-50g)*

In its brick packaging and forming machine range, Trepko also offers a two-line PMG4 machine for packaging 10-50g bricks. It is a response to the market’s demand for 10-50g bricks, particularly popular in the hotel and tourist industry.

Packaging material is supplied from one common reel and distributed for two lines. Overprint may be continuous or double unitary with a photo mark. The reel is unwound according to a one-lane system. Then, packaging sheets of required length are cut off from the unwound foil – as double ones for two packages are created in parallel. This allows considerable time shortening of both packaging material change-over and machine settings during brick format change (paper removal).

As in all PMG machines, brick can be wrapped in a packaging material like traditional aluminium foil, foils based on mineral components, parchment paper, coated paper or other paper of similar characteristics.

A special construction and control of the machine enables quick change of the brick height. Furthermore, the implemented one-line design ensures short time of tooling change-over for another brick height or shape, which may take both a traditional and oval shape.

Possible packaging dimensions on this machine are the following:

- length: from 20 to 65 mm
- width: from 20 to 40 mm
- height: from 8 to 30 mm

The 10-50 g brick-packaging machine is integrated with a semi-automatic machine for laying and stacking of bricks. The grouping unit enables the acquiring of a desired brick arrangement for cumulative packaging. Bricks leave the packaging machine in two lines, and are then grouped and stacked according to a pre-set pattern. After receiving a proper number of layers, the operator must only put a pre-formed cardboard box on top of a specially designed holder and turn it over manually 180 degrees. As a result, effectiveness of the packaging process is considerably increased, as well as the costs related to these operations are being minimized.
This year, Trepko introduced a new generation of PMG machines, now named the 800 series machine. This new generation of machines is intended for forming and wrapping of bricks with a capacity being 35% higher than known from the PMG series. Thereby typically a minimum of 240 bricks per minute is achieved in type 822 doing 250 gram packs. A number of these machines have already been delivered and are running successfully in several markets including Austria.

Modern solutions in control and drives ensure a reliable machine operation while maintaining the required brick shape and its proper filling. The paper feeding construction is protected with shields, and additionally it may be equipped with a UV lamp irradiation system.

External elements are made of acid-proof and stainless steels or aluminium alloys with external anodised surfaces. All the elements that have direct contact with the product being packaged are made of acid-proof steel of low carbon content or other materials approved for contact with foodstuffs. The machine provides a number of advantages that guarantee the user both fulfilment of ever more stringent packaging hygiene standards and a lowering of operation and maintenance costs.

The integrated servo and control solutions in the PMG and 800 series guarantee quality and stability of the packaging process through correct shaping and wrapping of bricks as well as low costs of operation and maintenance. Additionally, there is a possibility of integration of both the existing machines and new ones with Wrap Around systems and palletizing systems, thus increasing the value of Trepko’s offer by its complexity.

Trepko has achieved the USDA approved standard for the PMG range opening up the North American market as a whole.
Since Trepko offers solutions to both small, medium and high speed production lines, we are always able to adapt the packing capacity to the production line output. High filling accuracy with a constant ratio of solid parts to liquids is guaranteed. Moreover, thanks to a unique design of the agitator both solid particles and sauce are evenly distributed in the cup. A key advantage of the Trepko’s solution is also preservation of the product structure to make it look as attractive as home-made salads.

The dosing system for this kind of a product can be supplied with the options of clean in place and gas flush injection. Packaging can be carried out in a modified atmosphere which eliminates air from the space between the product and the foil. The inert gas is flushed under the spot sealed foil enabling the product to have a longer shelf life and fresh appearance.

We hope that you will be inspired not only by the above example but also by a general Trepko attitude to support an innovative approach to foodstuffs. Even the most sophisticated ideas are welcome, as our team is ready to make them happen.
Apostel prefer Trepko fillers
Quality and total freshness produced with reliable technology is a compressed version of the reason of success of Apostel Joghurt Produktions GmbH. Located in Garbsen (Germany) the company has started virtually as a small enterprise to become one of the most important manufacturers of dairy products in the Mediterranean style. Apostel distributes Mediterranean specialty products but also manufactures Greek-style yoghurt, sour cream and the famous “Zaziki”. Sales are in the area of €45m and 20 out of 70 employees work in a state-of-the-art plant in processing. Total milk intake is 20m kg p.a., sourced from dairies in form of pasteurized fresh milk and cream.

Freshness
What makes Apostel’s production different from others is an extremely high hygiene standard that the plant has developed over the past years. CEO Rudolf Dörfel, who has been with Apostel since 1996, comments: “For us freshness and microbiological status are of key importance. Only this allows us to supply superior quality which lets us survive as a smallplayer in a market niche.” That this is not just lip-service becomes evident when visiting the plant. A fresher and better Zaziki might not be available from any other place than Apostel. The company has own contracted cucumber and garlic growing in Spain. Cucumbers come fresh; they are cleaned, rasped and then directly fed into the white basic mass. Garlic slurry comes also fresh from Spain. In spite of the product’s not being further heat-treated after the adding of ingredients Apostel states a sell-by date of 35 days.

Filling technology
It is obvious that filling technology is a key factor for Apostel. Being the first in Germany, Apostel have installed a carousel filler made by Trepko. The 2-lane machine model 230 fills 1-kg tubs and has an output of 4,000 cph. To choose Trepko as supplier had several reasons.

Mr. Dörfel: “We have of course experience with the other filling machine makers. Over the years we had to learn painfully what one would be wise not to include into the machine concept. Generally speaking, there is too much technology in filling equipment, which makes it costly, sensitive to accidents, and difficult to operate. When expanding our production in 2007 we were looking for alternative makes. As a specialist for ultra-fresh products we pose great importance on cleaning. Machines, components and whole line must not only meet CIP but also SIP standards. This makes the choice of a filler even more difficult…”

Mr. Dörfel got his first information about Trepko by reading a trade magazine and then by visiting Trepko at an exhibition. Two demonstrations of running machines in Norway and Poland made it all clear to Mr. Dörfel and Technical Manager Robert Helminski. Helminski: “We like the construction of Trepko machines, it’s all clearly lain out and accessible. There is value for money. The filler with its servo drives is running smoothly and the machine has not needed any repair in the 2 years that we have had it in operation now. There is no downtime which is being confirmed by our plant electrician all the time. Trepko installed the machine, gave us an instruction, and that was it basically.”

Mr. Dörfel adds: “Cleaning and change-over of filling volume is easy and smooth. Should we need replacement or added capacity we surely would get back to Trepko as preferred supplier.” Operation and maintenance is even more simplified as the machines consist of standard components and automation bases on Siemens S7 PLC. Trepko’s Regional Sales Director Tomasz Mierzwa says: “We take no risks in the selection of our machine components. And as we are multinational, there is always a service technician fast at hand should things get critical.” Apostel has installed a special packaging material sterilization in the 230 filler.

Cups and lids are sterilized as well as the head space of the tubs using Air Solution’s process.

Yoghurt production
Apostel increases the number of products carefully, so that it is possible to fill out the market niche with top-quality products. Mr. Dörfel: “We are not, and we are not going to become a mass-producer!”.
The biggest Trepko packaging line for U.F. white cheese in Mlekara Šabac dairy

Mlekara Šabac dairy plant has a twenty-year-long tradition of cheese making and it was one of the first dairies that launched the production of fine full fat white cheese. Šabac cheese is made on a fully automated production line, in a closed zone with sterile air. This is state-of-the-art and the largest production line in the world. Šabac production is fully harmonised with nature without any artificial additives and preserves.

The rich and delicate taste, combined with an ideal balance of slightly acidic and mildly salty flavour, give their feta cheese that distinguished note which our consumers recognise as top quality. The partnership between Šabac and Trepko led to a huge step forward in feta cheese production in this part of Europe as buyers were offered 250g, 450g and 1kg packaging, which were not only new in the market, but also more practical. The production is based on Trepko’s filling & coagulation plants for U.F. white cheese using the 300 Series range of machinery.

While striving to adjust the product to suit the demands of their consumers, Šabac standardised the process of feta-slicing during filling, reducing handling and enabling easier removal of the cheese from the package.

Šabac is the only dairy plant with full control over all sectors of cheese production, which extends to the production of their own packaging in strictly controlled sterile conditions. This is one of the crucial factors in achieving the consistent quality of their cheese as their very own package provides full protection of the product.

Today, Mlekara Šabac dairy products are one of the world’s market leaders for this product. There is huge interest in products such as their feta cheese, Sirko cheese spread and Ala kajmak spread, not only in the region, but also in Europe and beyond. Both Sirko cheese and Ala kajmak are filled on Trepko 200 Series Rotary Machines.

The dairy’s current development is on an upward turn, which is why it can initiate new investments and new business undertakings with great confidence, as they guarantee its further development, expanded capacity, and placement of goods in both the domestic and foreign markets. The dairy’s rich product assortment easily conquers domestic and regional markets and at the same time represents great export potential.
300 series
filling & coagulation plant for (U.F.) white cheese
The Trans-Siberian Railway is one of the most famous, longest and most scenic rail routes in the world. It runs through several continents, more than eight time zones and across nearly half the planet.

My journey by the train named “TREPKO” has lasted fifteen years. The first machines were sold where “the great Siberian road” begins, in the capital of Russia: Moscow.

Starting from Moscow to Kirov then Perm, Yekaterinburg, Tiumen, Omsk, Novosibirsk, Krasnoyarsk, Irkutsk, Khabarovsk, Ussurijsk all the way up to Vladivostok, whenever you stop you will today hear the heartbeat of TREPKO machines. These are just some of the TREPKO stations on the Trans-Siberian route. There are many more around Russia. In fact more than 120 Russian companies have invested in our equipment. Today there are 165 TREPKO machines working in Russia across various sectors including dairy, yellow fats, meat and yeast.

My position in TREPKO gives me not only the opportunity to further my career ambitions but it also allows me to expand my knowledge of this country, which is of great interest to me.

I do well recall the day when I was hired as a Sales Manager in Trepko A/S, Denmark, almost 4 years ago! It had certainly been a challenge from day one due to the demanding nature of the job. It also goes without saying that this is not a profession for those without drive, passion and understanding of hard work.

Being given the responsibility for Turkey, Greece & Cyprus in the beginning of my employment with the Trepko Group, today I am responsible for various countries such as Iran, S.Korea, Algeria, Morocco, Azerbaijan, China, Turkmenistan, India. Travelling around the globe and meeting people from different cultures is a perfect area of growth as an individual for me with career plans in international business. Yet this is only one aspect of the job, but certainly the major part which makes me fulfilled as an employee. Being very well aware of the fact that “different folks need different strokes”, my day-to-day tasks at work involves switching back & forth to different cultures.

The great saying, “When in Rome, do as the Romans” well describes my mindset while negotiating a huge contract with a potential buyer in some corner of the world. The Trepko Group is a perfect workplace to develop such skills which allows you to grasp the real means of communication and also makes the best of the very talented colleagues.