

No.10

The First Specialized Monthly Magazine of Tray Sealer, Thermoforming and Vacuum Chamber Packaging Machinery Industry

VORMEK

Vormek - a Knowledge-based Machinery Company, an Innovation Reference with Superior Technology and High Reputation in its Field

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Future-Oriented Perspective and Distinction of Vormek in Designing and Manufacturing Of Packaging Machines (Tray Sealer, Thermoforming And Vacuum Chamber)



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Necessity of Credibility and Stability of the Manufacturer in the Tray Sealer Packaging Machine Industry

Editorial: Dr. David Sterling

In the packaging industry, and specifically in the tray sealer machine industry, the credibility and stability of the manufacturer are recognized as two key factors for success and growth.

The credibility of the manufacturer creates trust between customers and producers. In today's competitive world, trust in the quality and after-sales services of tray sealer machine manufacturers is highly important. Customers are only willing to purchase and use these machines when they are confident in their performance, durability, and continuous support.

The stability of the manufacturer is also a guarantee for the continuity of quality and innovation. Manufacturers who are able to maintain high standards in their production processes and respond to the growing demands of the market can strengthen their position in global competition.

Ultimately, close cooperation between manufacturers and customers, along with continuous enhancement of quality and innovation, can create a sustainable and successful future for the tray sealer packaging industry in the country.





Automation System of VORMEK Machines

Mr. Simon Füllenbach

The automation system in any system is considered the beating heart of its control; therefore, the intelligent selection of the model and brand of hardware, as well as its programming software, and the use of skilled programmers, results in flawless system operation, ease of use for the operator, and minimizing operational errors.

In the construction of the General Type and also Professional machines of this company, efforts have been made to use Siemens PLC for the automation system of these machines.

The main advantages of Siemens PLC compared to other brands include high manufacturing quality, reliability and long lifespan, extensive software and hardware support, excellent scalability for both small and large projects, high flexibility in programming and network connectivity. Advantages of Siemens in comparison to other brands:

• **High Quality and Reliability**

• Siemens is known for its high manufacturing quality and premium components, which lead to a longer useful life and less breakdowns.

• **Software and Hardware Support:**

• Siemens offers powerful software tools for programming, troubleshooting, and monitoring, and provides strong support for both hardware and software.

• **Scalability and Flexibility:**

• The ability to upgrade and expand hardware by adding various modules allows Siemens systems to be used at both small and large project levels.

• **Network Connectivity:**

• The ability of Siemens PLC to connect to various industrial networks and other automation equipment makes control systems more powerful.

• **Ease of Use and Programming:**

• Easy programming and high flexibility in writing control programs for different processes is considered a key advantage.



Future-Oriented Perspective and Distinction of Vormek in Designing and Manufacturing of Packaging Machines (Tray Sealer, Thermoforming and Vacuum Chamber)

Simon Füllbach

In the intense and competitive battlefield of the food industry, manufacturers always face a major challenge: how to package their product with high quality, global standards, and at the same time aligned with market needs? Food factories know well that if their product is not packaged correctly, all their efforts in producing the best taste and quality will be wasted. Packaging is not just a cover; it is the identity of the product, the credibility of the brand, and the first thing the customer sees.

But here lies a fundamental problem:

Many tray sealer, thermoforming, and vacuum chamber packaging machines were, until a few years ago, only produced in Europe and leading countries. Their import was costly, time-consuming, and created dependency. The result of this dependency?

- Difficulty communicating with them from the time of purchase to after-sales technical services
- High costs for purchasing the machine, expensive spare parts, and high transportation fees
- And ultimately, a decrease in competitive power in domestic and international markets.

Imagine you are a manufacturer producing the highest quality of a food product, but your packaging machines are either old or imported.

- The old machine does not have the required flexibility and cannot package according to current needs.
- The imported machine has high maintenance and spare part costs. Each breakdown means production line stoppage.
- And worse, for the smallest change or innovation, you must look toward Europe.

This means growth opportunities are lost.

The machines we design and manufacture:

- Various tray sealer packaging machines (Tray Sealer): a machine for packaging food products in containers, suitable for various dry, fresh, semi-prepared, and frozen products

- Thermoforming packaging machines (Thermoforming): the latest global technology from forming the container to packaging with high flexibility, highly hygienic and professional

- Vacuum chamber packaging machines (Vacuum Chamber): a machine for packaging food products in plastic bags in a vacuumed form

At Vormek, we design machines not merely for sale, but to solve the customer's problem.

Every manufacturer has its own specific need:

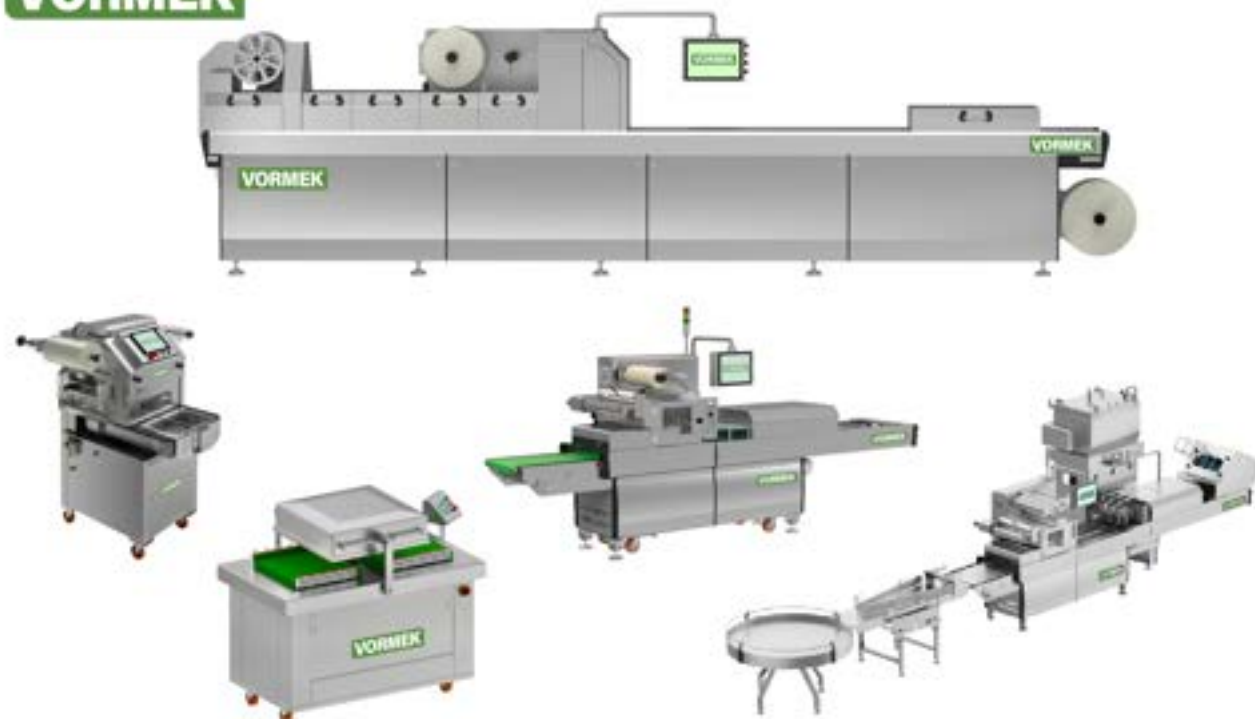
- One seeks to increase product shelf life.
- Another wants the appearance of the packaging to be distinctive.
- Another needs to reduce personnel costs and instead invest that amount in having an automatic line.

We personalize the machines according to these needs; meaning the same European technology

Where does our strength come from?

1. Knowledge-based structure and scientific approach: Vormek is a knowledge-based company, meaning it is rooted in science and research, not merely market perspective.
2. Research and Development Unit (R&D): We have a specialized team of experts with high academic qualifications and practical experience. This team continuously works on improving machines, innovation, and adding new options.
3. Creativity and innovation: Our perspective is not only on today. We see the future. Our machines are designed to move several years ahead of the needs of the country's market.
4. Eliminating the country's dependency on imports: When our machines can compete with European models, the domestic manufacturer no longer needs to pay exorbitant import costs.
5. Flexibility in design: We design machines according to the type of product and customer preference. For every manufacturer, there is a unique solution.





And what will be the result?

- The market benefits from high-quality, standard, and healthy products.
- Export doors open wider with modern and competitive packaging.
- And most importantly, the country becomes self-sufficient in this field.

Vormek is not just a manufacturer of machines; we are the partner of creativity and growth for domestic producers.

We believe every packaging tells a story; a story of quality, trust, and foresight. And we are building this future today.

Introduction of Vormek Piston Cylinder Filling Machine

In the food, pharmaceutical, chemical, and cosmetic industries, one of the most important stages of production is the precise and hygienic filling of viscous and semi-solid products. Here, the Vormek piston cylinder filling machine has gained a special position as one of the innovative and engineered solutions.

Operating Mechanism

At the heart of this machine is a reciprocating cylinder and piston that, in coordination with a three-way valve, performs the filling process in two stages:

1. **Suction (Suction):** As the piston moves backward, the inlet path opens and the product enters the cylinder.
2. **Injection (Filling):** As it moves forward, the inlet path closes and the product enters the container through the nozzle, without leakage or error.

Each nozzle is equipped with an independent piston. This design ensures high volumetric precision and enables uniform filling even in high-viscosity products.

Features and Advantages

What distinguishes this machine from similar models is the combination of mechanical precision, hygiene convenience, and flexibility in design:

- High volumetric precision: thanks to the piston mechanism, each container is filled without error, leakage, or volume variation.

- Suitable for viscous products: from honey, chocolate spread, and marmalade to Olivier salad, thick sauces, paste, and even pharmaceutical and cosmetic creams.

- Easy washing (CIP): the three-stage washing design ensures complete cleaning of pathways without residue or microbial load.

- Hygienic and durable body: using 304 and 316 grade stainless steel makes the machine rustproof, durable, and fully washable.

- Customized nozzles: designed based on product type and customer needs to prevent dripping, leakage, or damage to product texture.

- Adjustable injection volume: manual or automatic adjustment according to production capacity.

- Flexibility in design: from single-nozzle models for limited production to multi-nozzle models for high-capacity lines

Points of Distinction

What makes the Vormek piston cylinder filling machine stand out in the market is not only the quality of its components or its appearance, but also its precise engineering based on deep understanding of the needs of the food and pharmaceutical industries. This machine:

- Is compatible with existing production lines (dimensions, electrical system, and automation).

- Is designed to be simple and cost-effective to maintain.

- Prevents product residue in the path, minimizing spoilage and contamination risk.

- Is designed and manufactured by an experienced engineering team that always pays attention to customer needs.

The Vormek piston cylinder filling machine is not just a filling machine; it is a tool to increase quality, hygiene, and efficiency in production lines. With its combination of engineering innovation and hygiene standards, it enables manufacturers to bring their viscous and semi-solid products to market with maximum precision and safety.

Considering its high volumetric accuracy, easy washing capability, customized design for each customer, and reliable after-sales service, this machine is one of the best choices for manufacturers who value the quality and shelf life of their products.



Botanical Characteristics of Olive

Botanical Characteristics of Olive

Olive belongs to the branch of flowering plants, to the group of polypetalous plants, and to the Oleaceae family.

Olive is an evergreen plant with a long lifespan, which can, in essence, be considered an eternal tree.

Olive includes approximately 20 species of small trees from the Oleaceae family and has had widespread distribution in the ancient world across the Mediterranean region, North Africa, Southeast Asia, from northern to southern China, Scotland, and eastern Australia.

They are evergreen and have small, entire leaves that are arranged opposite each other.

The fruit of this plant is a drupe.

Olive is compatible with Mediterranean and semi-Mediterranean climates.

Olive performs best in regions with mild winters and long, hot, dry summers.

Olive is sensitive to severe frost, but this tolerance varies during the plant's growth stages; young plants can tolerate up to -9 degrees Celsius, and older trees up to -12 degrees Celsius.

Olive grows well and produces an acceptable yield in regions with annual rainfall between 500 to 800 millimeters.

High moisture levels promote fungal and bacterial diseases; therefore, planting it near the sea should be avoided.

Olive Harvesting:

After ripening, olives change color from dark green to yellow and then to black, which affects the harvest time depending on usage: for canning purposes, the fruit should be harvested when its color has turned from dark green to yellow, whereas for oil production, the fruit needs to be dark and black, and the darker it is, the higher its oil content.

Harvesting is usually done manually, and recently, with development, the product is transported to the factory using special baskets. Olive trees usually begin fruiting in the fifth year, and their economic yield starts from the twelfth year. The average production in Iran is 4 tons per hectare, which, with proper care, can reach up to 8 tons per hectare.



Increasing Shelf Life: The Key to the Success of Rasaya Company

Mr. Hanifi, CEO and brand owner of Rasaya Company

In a recent interview with "Rasaya," Mr. Hanifi, the esteemed manager of this company and one of our long-standing and loyal customers, highlighted the great importance of precise and reliable equipment in the olive packaging industry, particularly in preserving product quality, shelf life, and hygiene. This issue has always been one of the main concerns in this field, and "Rasaya," through its successful performance, has effectively met this need.

In our conversation with him, he stated that all stages of their product packaging are carried out using our fully automatic machine, and there is no manual interference in the final packaging stage. This has led to an increase in the speed of the process, and the packages have reached the desired level in terms of uniformity, quality, and hygiene.

According to Mr. Hanifi, their company packages approximately 7,500 packs, equivalent to 100 cartons of product, in an 8-hour work shift. In this process, two operators are responsible for supervising and controlling the machine.

A noteworthy point in the packaging process of Rasaya is that despite not using a gas injection system and relying solely on 38% vacuum, they have achieved remarkable shelf life in their products. This demonstrates that even the use of vacuum alone produces desirable results, and naturally, if gas injection is added to the process, the level of product preservation, shelf life, and hygiene will significantly increase.

At the end of the conversation, Mr. Hanifi said: "Since we purchased your machine, our operations have changed significantly. Our hygiene has improved, the shelf life and speed of our products have increased. Currently, our packaging is completely organized and done without manual intervention, as a result, customer satisfaction has significantly increased." Feedback of this kind is valuable to us and helps us move forward in the path of improving machines and services by better understanding the real needs of customers.





Everything about Olives; from Branch to Table



Green or Black?

Green olives are picked when they are still young and crisp; therefore, they have a firm texture and solid flesh. Black olives are left on the branch to fully ripen, which is why their flesh becomes softer.



The Secret of Mild Flavor

Black olives are different... soft and pleasant to eat. But green ones? They are more energetic with a distinctive bitter taste.



One Tree, Two Faces

Are both olives from the same tree? Yes, only the harvest time changes their color.



Hidden Bitterness

To consume raw olives, they must be placed in brine or a special solution for some time so that their strong bitterness turns into a pleasant taste.



Salt-Loving Greens

Green olives absolutely love salt! This is why their taste is saltier.



Delicious Fat of the Blacks

Black olives are slightly fattier, but this is the same healthy fat that makes the taste complete and delightful.



Friend of Your Heart

Each bite of olive is a small gift for your heart: full of good fat that gives you energy and peace.



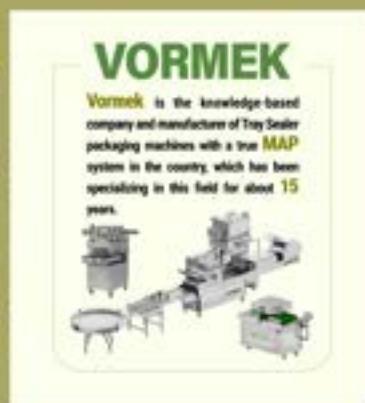
Stuffed or Plain?

Green olives are usually stuffed with pepper, garlic, or almond, but black olives are served without extra seasoning because the natural flavor of black olives is completely unique, whether whole or sliced.



Color Play

The color of the olive is not only related to its ripeness; the processing method can also turn a green olive into black or vice versa.



VORMEK

Vormek is the knowledge-based company and manufacturer of Tray Sealer packaging machines with a true MAP system in the country, which has been specializing in this field for about 15 years.



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Makhazen Steel Gharb Company or West Steel Tank Company (M.S.G Company)

Vormek Tanks Company, managed by Mr.Hosseini with 25 years of experience, was established in an industrial town with the aim of meeting the needs of the western region of the country in the field of designing and manufacturing various stainless steel tanks (single-wall, double-wall, and triple-wall), pasteurizer machines, various pumps, valves, and fittings. By utilizing modern engineering knowledge and adhering to global standards, the company has consistently pursued innovation and quality enhancement.

Through efficient and principled management, the products of this company have been delivered to consumers across the country in the shortest possible time and with the best quality. These efforts led Vormek Tanks Company to be selected as the provincial exemplary unit in 2007 and as the top entrepreneur in 2008.

Other products of this company include:

- Consultation, design, construction, installation, and commissioning of production lines for the food, dairy, and juice industries
- Design and manufacture of pressure and vacuum reactors
- Implementation of various CIP systems: manual, semi-automatic, and fully automatic
- Production of various aseptic tanks
- Concentration systems and spray dryers

Other products of this company include:

- Essence and extract extraction packages
- Lobe pumps and explosion-proof pumps



Specialized Quality Improvement Process for Enhancing Product Packaging

Specialized Quality Improvement Process for Enhancing Product Packaging

In order to enhance product quality, optimize production line performance, and achieve the highest level of quality required for packaging, our company has designed and implemented a specialized process in which production samples are regularly monitored under the direct supervision of our senior food industry expert.

This process includes a detailed examination of the physical, chemical, and sensory characteristics of the products to identify and analyze even the smallest inconsistencies.

By scientifically interpreting the data and evaluating each sample professionally, potential challenges in production and packaging stages are purposefully identified and resolved.

This approach not only ensures the final product quality but also, as an intelligent feedback system, facilitates sustainable development and enhances customer satisfaction.



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Technical Point of This Monthly Magazine

Mr. Alexander Hoffmann (Deputy of Vormek)

One of the advantages of Vormek machines is the use of Power Lock instead of a key on the shaft to secure related components. Power Lock fixes various parts such as pulleys, gears, or hubs to the shaft and prevents their looseness. Unlike traditional methods that require a key or impact, Power Lock is easily installed by tightening screws and does not require a hammer or pulley puller. This component, by creating a frictional pressure connection, is capable of transmitting very high torques. Power Lock ensures that the pulley or hub is properly aligned on the shaft and prevents vibration and noise. Due to the uniform distribution of pressure, it provides a safe and reliable connection and prevents misalignment of components.



The Importance of Using Tray Sealer, Thermoforming, and Vacuum Chamber Machines in Today's Packaging Industries

- Tray Sealer packaging machines, with easy operation and simple maintenance, make it possible to package a wide variety of food products. In addition to extending shelf life, they give the product a stylish and professional appearance.
- Thermoforming packaging machines, in addition to producing trays, also carry out the filling and packaging process. These machines, in different types such as soft film, hard film, and skin pack, can package food products in a highly professional and attractive way with complete precision.
- Vacuum Chamber machines, by completely removing the air (vacuum) from inside the filled pouches, can ensure freshness, safety, and long-term preservation of food products. Furthermore, the installation of various fillers and dedicated options on these machines makes the packaging process more automated, hygienic, and faster.
- This technological combination elevates packaging standards and, while modernizing the production process, creates trust and a modern image of the producer's brand in the minds of customers.



We warmly invite you, our dear audience, to share your topics of interest with us. Your opinions and suggestions not only help enrich our content but also guide us in providing more practical material to meet your needs.

Would you like to read a report about a specific industry or a special technology in the field of packaging?

Share your thoughts with us so we can cover them in upcoming editions.



ISO 9001 Certificate in the Field of
Packaging Machines Manufacturing



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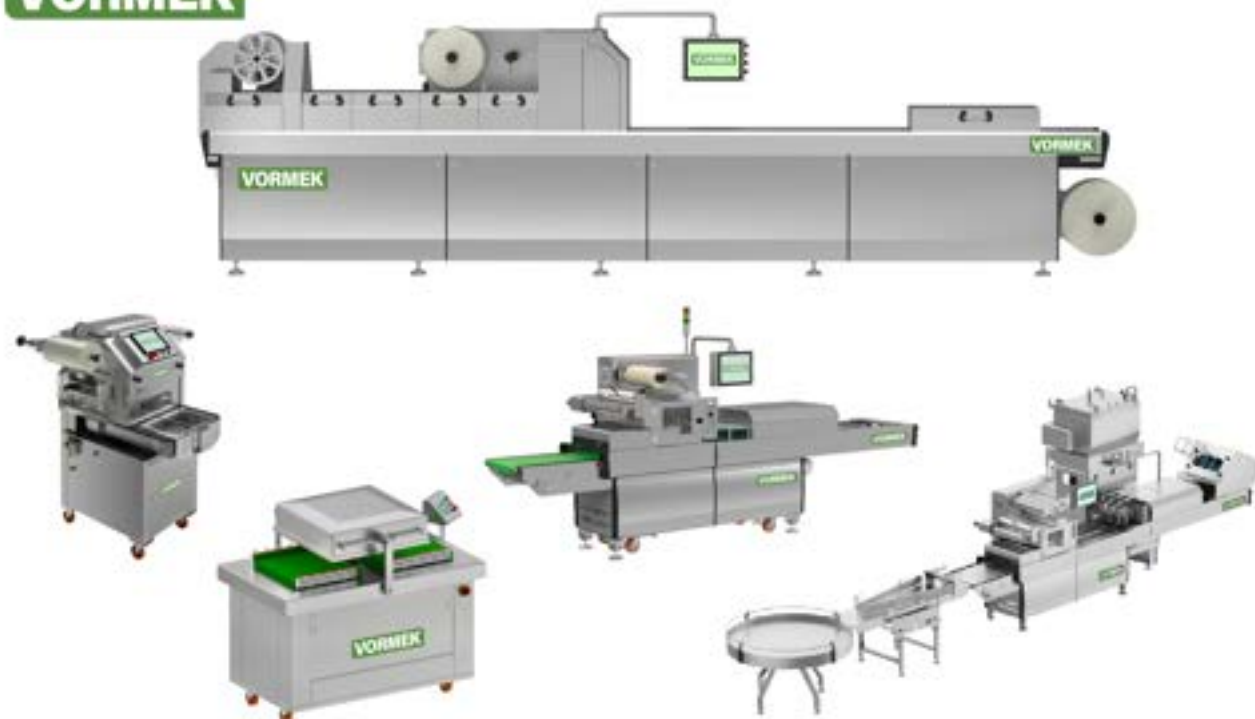
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Considering its high volumetric accuracy, easy washing capability, customized design for each customer, and reliable after-sales service, this machine is one of the best choices for manufacturers who value the quality and shelf life of their products.