

IN THE GREEN CANTON OF ST. GALLEN IN SWITZERLAND, WHERE NATURE OFFERS ITS BEST AND OFFERS TRANQUILITY AND VIEWS OF INDESCRIBABLE BEAUTY, THERE IS THE AMAZING COEXISTENCE WITH MODERNITY AND TECHNOLOGY OF HOLDERHOF PRODUKTE, A LEADING FOOD COMPANY IN THE PRODUCTION OF FRUIT JUICES.

IMMERSED IN LARGE PRISTINE MEADOWS, WARMED BY THE MILD TEMPERATURES OF LAKE CONSTANCE, HOLDERHOF PRODUKTE TURNED TO SMI FOR THE SUPPLY OF A NEW ASEPTIC LINE FOR THE PRODUCTION OF QUALITY JUICES WITH A THOUSAND THERAPEUTIC VIRTUES, DESIGNED ACCORDING TO THE MOST RIGOROUS MEASURES TO RESPECT THE ENVIRONMENT.

HOLDERHOF

➤ **JUICE SECTOR**
HOLDERHOF PRODUKTE AG
Henau, Switzerland

- ASEPTIC LINE OF 8,800 bottles / hour
- EBS 4 E ERGON stretch-blow moulding machine
 - Monobloc for filling and capping with net weight
 - LSK 30T ERGON packer
 - Conveyors
 - APS 1550 ERGON palletising system
 - SWM control and supervision system
 - Various sub supplies



GEO LOCATION



ALL THE FRESHNESS OF A MEADOW... IN A BOTTLE!

Christof Schenk was 20 years old, when in 2000, he founded Holderhof Produkte AG with the aim to produce and sell products made from elderberry flowers and berries. The first elderberry trees were planted in 1998 and the first product Elderwood wine, became the object of his graduate thesis in agriculture. The success of this new product prompted the Swiss company to expand the elderberry plantation and at the same time expand their business. At first there were only seven employees, today the company employs 25 people and, apart from elderberry, they also cultivate currants, raspberries, herbs and berries. This allows them to continue their efforts of innovation and diversification that is the basis of their very wide and varied, current production range. Since 2012 this Swiss company has produced syrups, fresh fruit juices and "soft drinks" within the PET container, bottling line at their factory in Henau, in the canton of San Gallo, while the production of syrups in glass bottles dates back to 2017. The great attention paid to the surrounding environment and the desire to protect and preserve it from future contamination, has considerably influenced the company's production choices.



➤ DID YOU KNOW THAT...

Elderberry and fiction: the elder is often mentioned in literature, as in a passage by Giovanni Verga, which mentions a musical instrument made of elderberry. In the Harry Potter saga, the most famous wizard in the world, the elderberry magic wand is the most powerful.

Stöppacio: an old children's game, popular in the Italian countryside. A kind of blowpipe is made from an elderberry branch and it is used to shoot tiny balls. The player who blows the ball furthest wins.

Origin of the term: elder comes from the Greek "sambuché", referring to the musical instrument similar to a flute made from the hollow branches of this small tree.

Natural dyes: Germanic people collected elderberries, which they then crushed to obtain a natural dye with which they painted their body before going hunting or in battle.

In the kitchen: elderberry flowers and berries are also used in culinary recipes. The flowers are used to flavour some drinks, while the ripe berries are used to make jams and jellies. There is a famous digestive liqueur based on a distillate of elderflower and aniseed, Sambuca.





SMI SOLUTIONS FOR HOLDERHOF



At the bottom of the success of Holderhof Produkte AG there is a deep love for and great attention paid to nature and to the quality of the final products. There is no reason to doubt the quality of a product that is 100% natural, which results from the use of excellent, organic, raw materials, subject to scrupulous controls, from the gathering, to the production, and the distribution to the consumer. To satisfy the various tastes of the latter, the Henau-based company continuously develops and introduces new products, marketed under its own brand or for third parties, both in Switzerland and in the rest of the world. The aseptic line solution provided by SMI, starts from these considerations: from the need to have an extremely flexible system, to process the many products offered by Holderhof, and from the importance of having hi-tech production systems, that preserve the surrounding natural environment.



ASEPTIC BOTTLING LINE FOR CONTAINERS IN PET

➤ **EBS 4 E ERGON BLOWER - production up to 8.800 bottles/hour**

Bottles worked: 17 different bottles in PET with a capacity of: 0.25/0.3/0.33/0.5/0.75/1 and 1.5 L.

➤ **NET WEIGHT FILLER AND CAPPER MONOBLOC FOR LIQUID PRODUCTS**

➤ **LSK 30T ERGON PACKER – production up to 30 packs/minute**

Packs created: Bundles in film only in 3x2 and 4x3 (0.5 L and 1 L bottles); 3x2 (0.25L – 0.33L – 0.75L and 1.5 L bottles) formats; Bundles in tray in 5x3 and 6x3 (0.5 L bottles) 4x3 (0.33 L bottles) and 3x2 (0.75 L bottles) formats; Bundles in tray + film in 3x2 (1 L bottles) and 4x3 (0.33 L bottles) formats

➤ **APS 1550 P ERGON PALLETISER**

Containers packed: bundles arriving from the LSK 30T ERGON packer

Pallets created: europallet 800x1200

➤ **SWM LINE SUPERVISOR**

Main advantages

- Solution for an aseptic bottling line including: rotary stretch-blow molding machine for the production of a large number of bottles of various capacities; net weight filler; automatic shrink wrapper to produce various bundles in film-only, tray-only or tray + film configurations and an automatic palletization system to process different palletisation schemes. Net weight filling and capping block of liquid products
- High flexibility to quickly switch from one bottle to another. Considering the production speeds, the customer could have chosen between rotary or linear stretch-blow molding solutions. Holderhof Produkte opted for SMI's EBS E ERGON rotary technology, because it offers the advantage of being more flexible in the production of various types of bottles, of different capacities, which require frequent format changes
- EBS E ERGON stretch-blow molding machine with extremely versatile preform heating oven: it can process different types of PET or rPET preforms. In fact, the Swiss company is increasing its use of preforms made largely with recycled resin
- The SMI solution for stretch-blow molding of containers adopts eco-compatible technologies, such as the two-stage air recovery system, which ensures a significant reduction in energy consumption and related costs

- Filling with weight dosing technology: the ideal solution for filling sensitive products such as juices and syrups
- Reduced and simplified maintenance operations, which also make it possible to optimize the consumption of washing liquids during the cleaning phases of the system
- High flexibility, both in the secondary packaging of the more than 35 formats processed by the LSK 30T ERGON shrink wrapper and in the tertiary packaging created by the APS 1550 palletiser, which allows to quickly switch from one pack format to another and from one palletisation scheme to another
- Simple and quick management of work programs by the machine operator and scheduled maintenance interventions
- Reduced energy consumption, which is a "must" for Holderhof Produkte AG, particularly demanding in adopting solutions that protect the surrounding environment
- Simple and intuitive management and control of the production line, thanks to the POSYC® HMI system dedicated to monitoring line operation and controlling product flow and conveyor speed
- Continuous supervision of the bottling line, thanks to the SWM supervisor system, which ensures rapid and efficient monitoring of line operation, even remotely via smartphone and tablet
- The SWM Supervisor control system, developed according to Industry 4.0 and IoT principles, combines the typical production data collection and monitoring functions with a series of tools to simplify the control and management of the plant and improve its productivity and safety and cost containment



PRODUCTS FOR EVERY TASTE

The Holderhof Produkte production range is constantly expanding and includes:

- Refreshing drinks: organic drinks based on natural extracts, fruit juices and tea
- Organic and conventional syrups: produced with the best Swiss fruit, 100% organic, available in PET and glass bottles
- Fresh juices, both with fruit and pulp
- Fruit wines: with fresh fruit and with an alcohol content of less than 10%, which makes them particularly suitable as an aperitif
- Organic Energy Drink
- Elderberry syrup, rich in fiber, tannins and dyes, a valuable ally from a medical point of view to prevent heart and circulatory diseases; a natural purifier, rich in vitamins (especially vitamin C) and free amino acids
- Private label products: Holderhof is an ideal partner for the production, filling and packaging of various beverage formats for third parties in PET or glass bottles



➤ THERAPEUTIC QUALITIES OF ELDERBERRY

From a nutritional point of view, the elderberry, contains several beneficial substances for our body. Rich in vitamin B, A and C, this fruit is rich in minerals such as potassium, magnesium, zinc, sodium, calcium, phosphorus and iron. Elderberries contain antioxidants (including flavonoids, anthocyanins, tannins, terpenes and glycosides, polyphenols, citric, cinnamic and chlorogenic acids) and many amino acids (including glutamic and aspartic acids, alanine, arginine, cystine, glycine, isoleucine, lysine, proline, serine, tyrosine, threonine, tryptophan and valine). elderberry, is therefore an excellent remedy for treating infections in the respiratory tract, such as colds, coughs, sore throats and asthma, thanks also to its anti-inflammatory properties. The flavonoids contained in elderberry are vasodilators and help unblock nasal congestion and stimulate bronchial secretion. Dried flower and berry wraps relieve the swelling of heavy legs and promote peripheral blood circulation. elderberry has an antibacterial and antiviral action, useful for treating cold symptoms, but also for allergies and sinusitis, as well as supporting the immune system. Bioflavonoids, found in flowers and berries, strengthen the immune system by increasing antioxidant levels and protecting cell walls from virus attacks. Various studies have shown that elderberry extracts, reduce the duration of flu symptoms, on average from the classic 6 days, to just 24 hours, and that the substances contained in it inhibit the replication of viral DNA, not only in influenza but in general in all viruses.

THE HOLDERHOF ELDERBERRY PLANTATIONS

Elderberry trees provide the raw materials that Holderhof Produkte AG needs for its products. The fruit syrups are made with organic, natural, fruit juices, made with fruits from the plantations located between Lake Constance and the Toggenburg district and in which dozens of farmers work. The hand-picked harvest, of flowers and berries, is the most time-consuming work, but at the same time ensures a

high, quality raw material. Only a few hours pass between harvesting and processing, a fundamental aspect to guarantee natural, fresh, tasty, quality products. For centuries, elderberry, together with chamomile, has been one of the main remedies of herbal medicine, appreciated for its wealth of beneficial properties, especially with regards to its antibacterial and antiviral functions. The medicinal-herbal properties are mainly contained in the fruits and flowers. From

the processing of this plant, both the elderberry syrup of the same name and decoctions, herbal teas and cosmetic preparations are obtained. The flowers can be harvested between May and June, while for the berries you have to wait until the end of August when they are fully ripe. Ripe berries reach an almost black colour, very similar to blueberries, while if they are red, they have an unripe taste and can also be irritating.



AT THE BOTTOM OF THE SUCCESS OF HOLDERHOF PRODUKTE AG THERE IS A DEEP LOVE FOR AND GREAT ATTENTION PAID TO NATURE AND TO THE QUALITY OF THE FINAL PRODUCTS



A CHAT WITH THE CUSTOMER

→ INTERVIEW WITH CHRISTOF SCHENK Owner of Holderhof Produkte AG



Q: Mr. Schenk, is it correct to say that your passion for elderberry based products, came from your thesis on elderberry wine?

A: Yes, that is correct. It all began with the thesis I prepared for my degree in agriculture which was on elderberry wine. The thesis and the interest in this product with ancient virtues were the elements that prompted me to start the Holderhof Produkte business in 2000.

Q: How do Holderhof products differ from all others?

A: The fact that most of the raw materials come from our certified, organic farm clearly sets us apart from our competitors.

In this way, we can constantly monitor the quality, starting from the raw material up to the ready drink.

Q: What were the most important milestones for the growth of your company?

A: Definitely, the construction of the production plant with the first PET bottling line. To satisfy the multiple tastes of consumers, Holderhof, continuously develops and introduces new drinks, marketed under its own brand or for third parties, bottled in PET containers. An increasingly large number of companies, even abroad, are choosing the quality of our products.

Q: Is the innovation continuing?

A: Of course! In a market that is under continual change, we need to innovate continually, whether with our drinks or with technology. The 8,800 bottles/hour aseptic line that was recently installed by SMI, came from the need to improve continually and have the latest hi-tech production plant, which is extremely flexible and able to efficiently pack the wide range of juices that we produce.

Q: Your company's production is very varied and is still expanding. What are the advantages offered by the new aseptic filling line supplied by SMI?

A: Since the blow moulding machine, conveyors, shrink wrapper and palletiser were designed, built and installed by a single supplier, we can benefit from optimised management costs and changeover times. The production of the Holderhof company, is in fact very varied and we need to quickly switch from one bottle to another and from one pack format to another. We opted for the rotary solution of the EBS E ERGON blow moulding machine, because it offers the advantage of being flexible in the production of various types of PET containers, of different capacities, and allows simple and quick format changes.

Q: Holderhof Produkte AG's corporate philosophy is based on the "field to bottle" principle, demonstrating how important sustainability and environmental protection are. What characteristics do your suppliers need to have, to satisfy this principle?

A: Our suppliers must have equally high requirements in terms of quality. Through the use of modern bottling systems, we can improve energy efficiency and make a valid contribution to environmental protection.

Q: The care and love for nature and the final products are the basis of your success. Do you have your own "organic" elderberry crops?

A: Exact. As already mentioned, we grow various raw materials, including elderberry, at our certified organic farm, located a few kilometers from the bottling plant. At the base of our success there is a deep love and great attention for nature and for the quality of the final products which are 100% natural. For these reasons, it is essential to use excellent organic, raw, materials and subject them to scrupulous controls throughout the production process.

Q: How do you see the future of the natural drinks industry?

A: The demand for naturally, produced beverages, especially in the organic sector, will continue to grow. Customers are increasingly interested in what the products contain and will become increasingly opposed to the use of synthetic raw materials. The strong investments of Holderhof in organic agriculture, have led to continuous expansions of berry plantations and paying the maximum attention to the activities of harvesting and production, in order to maintain the quality of the raw materials.



AN IMMENSE OPEN-AIR GARDEN THAT LOOKS TO THE FUTURE

In the Swiss canton of St. Gallen, near the spectacular Lake Constance, an international area spanning Germany, Austria, Switzerland and the Principality of Liechtenstein, everything is surrounded by immense, rolling hills and extensive fruit plantations. The Holderhof Produkte AG company is located in the heart of this fairytale

landscape, where nature and modernity coexist harmoniously and where the love for art, hospitality and “joie de vivre” come together in a single environment. This area of Switzerland is home to numerous companies operating on a global scale, many of which, such as Holderhof, are leaders in their industry. Dominating this extraordinary Swiss territory, is the famous Lake Constance,

a body of water worthy of protection, surrounded by lush vegetation, with plantations of fruit trees and vines that extend as far as the eye can see; a territory to be savored, in the slow rolling of its sweet hills, where villages with ancient charm are hidden, witnesses of a distant history. Glimpses full of charm, in which nature and its rhythms have always been the protagonists.

➤ LAKE CONSTANCE

Fed by the Rhine, Lake Constance consists of two parts that are connected to each other: the Untersee (lower lake) and the larger Obersee (upper lake). This large body of water, which forms a triple border between Germany, Switzerland and Austria, is a destination that is rich in beautiful natural landscapes, a place characterized by a romantic atmosphere that offers emotions at any time of the year. In summer it is an ideal destination for sailing, windsurfing and swimming. The beautiful Bodensee-Radweg cycle path runs around the lake. The climate, which combines the influences of the lake and the nearby mountains, the pure and transparent waters and the uncontaminated habitat, offer an unforgettable spectacle to visitors: many natural wonders just waiting to be discovered, a continuous alternation of alpine panoramas, covered hills of vineyards and delightful towns where life flows quietly. Among its many jewels, there are historical places of interest, such as Constance: in this German city the so-called Peace of Constance (1183) and the Council of Constance (1414-1418) took place and it was here that Count Ferdinand Von Zeppelin, builder of the famous airships was born and he based his enterprise in the nearby town of Friedrichshafen (now home to an aviation museum).





**A PEARL
SURROUNDED
BY
GREENERY**

Imagine being surrounded by rolling hills dotted with small typical houses and lots of pastures, interrupted by the presence of stupendous and steep limestone mountains, which shine with gold as the sun goes down. The gentle grassy slopes become real grass slides, which, in autumn, take on warm colours with great charm. Here nature has been vastly modified by man, many areas, especially the more hilly and flat ones, have been cleared to make way for pastures, while maintaining the harmony of a relaxing and evocative landscape. Near the mountain range of the canton of Appenzell Innerrhoden, the gentle hills become more rugged and you find yourself walking along comfortable and relaxing paths, which then become steep and death defying, until you discover the suggestive limestone spiers. At the foot of these steep slopes, in the meadows of the valley floor of the Toggenburg district, where a few scattered huts surround this fairytale landscape, the products of hi-tech companies such as Holderhof Produkte, become magical for many consumers, especially elderberry syrup, a drink with remarkable healing properties and a symbolic product of the company itself.

