

Holderhof Produkte installs aseptic PET line for its organic fruit drinks

# Nature in a bottle

Founded in 2000 by young entrepreneur Christof Schenk, Holderhof Produkte AG manufactures and sells products made from elderberry flowers and berries, as well as currants, raspberries, herbs and berries grown on its own lands. The company's factory at Henau, in St Gallen canton, Switzerland, close by Lake Constance, has a payroll of 25 employees. Holderhof has, since 2012, packaged its products primarily in PET containers, with some syrups bottled in glass since 2017.

Holderhof makes products under its own brand and for third parties and private label, in Switzerland and in other countries. Its range includes organic drinks based on natural fruit juices and teas; organic and conventional syrups, available in both glass and PET bottles; fresh juices, made from both whole fruit and pulp; fruit wines, made from fresh fruit and with an alcohol content of less than 10%; elderberry syrup; and an organic energy drink. Its stated desire to protect and preserve its environment has a strong influence on its product and manufacturing strategies. It presents itself as an ecologically responsible organisation, using organic raw materials and deploying collection, production and distribution methods and technologies that are in line with its brand values.

Holderhof began its existence with elderberry-based products. The organic fruit syrups are made with fruits from plantations located between Lake Constance and the Toggenburg district. The harvest is hand-picked; flowers in in May to June and berries from the end of August. Manual harvesting is labour-intensive but Holderhof has taken the view that this is the best way of ensuring high-quality raw material. The time between harvesting and processing is kept as short as possible, to guarantee freshness and to maintain taste and quality in the finished products.

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### HIGH ADDED VALUE



**Low TCO** Compared to Traditional technology



**Reduced logistic** less warehouse & transport



**Energy consumption** only 0.58 kWh/kg PET



**CO<sub>2</sub> emissions** compared to virgin resin



### Flexibility and adaptability

The aseptic line solution, provided by SMI, was designed and installed with the intention of providing a flexible and adaptable system, able to process the full range of Holderhof products and to preserve the surrounding environment.

Christof Schenk, the founder and now managing director of Holderhof Produkte AG, forecasts that the demand for natural beverages will continue to grow.

“Customers are increasingly interested in product contents and will become increasingly opposed to the use of synthetic raw materials,” he says. Holderhof has invested heavily in organic agriculture and continuous expansion of its berry plantations. “We pay maximum attention to the activities of harvesting and production, in order to maintain the quality of the raw materials.”



**Weight dosing technology is a good solution for filling sensitive products such as juices and syrups.**

### Quality and continuous development

Holderhof originated in Christof Schenk's passion for elderberry products; elderberry wine was the subject of his undergraduate thesis at university. Its commitment to sourcing

raw materials only from its own, certified, organic farm is a factor that differentiates it from its competitors, he maintains. “In this way, we can constantly monitor the quality, starting from the raw material up to the ready drink,” he says.



The installation of the SMI aseptic bottling line is in accordance with the company's ethos of continuous development and innovation.

“The aseptic line, 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,” Schenk says. Both the production line itself and its ancillary equipment all came from SMI. “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 EBS E Ergon rotary 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.”

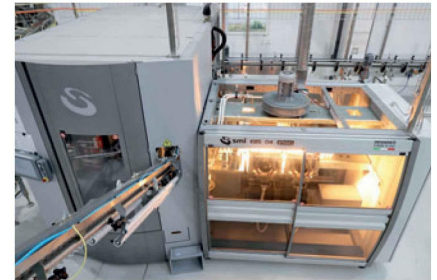
### Changeover times minimised; formats optimised

The EBS 4 E Ergon blower has a capacity of up to 8,800 bph. Holderhof uses it to produce 17 different PET bottle types, with capacities from 250 ml to 1.5l. A monobloc LSK 30T Ergon Packer fills and packs up to

30 units a minute. It bundles in film, tray and tray plus film in 3x2 or 4x3 formats. An APS 1550 P Ergon Palletiser packs bundles arriving from the Packer onto 800x1200 Europallets.

Holderhof Produkte opted for SMI's EBS E Ergon rotary technology for its flexibility in producing and handling a range of bottles of different types, with the consequent need for frequent format changes. The stretch-blow moulding machine with preheating oven can process different types of PET or rPET preforms, which helps the company to implement its strategy of increasing its use of recycled resin. The SMI solution's two-stage air recovery system delivers a reduction in energy consumption and related costs.

Filling with weight-dosing technology is the preferred solution for sensitive products, such as juices and syrups. Simplified maintenance operations help to optimise consumption of washing liquids during cleaning.



**The EBS 4 E Ergon Blower produces up to 8,800 bph.**

The LSK 30T ergon shrink wrapper and the APS 1550 palletiser can package more than 35 formats and quickly switch between them.

The line's Posyc HMI system is claimed to provide simple and intuitive management and control of the production line, including product flow and conveyor speed. The SWM supervisor system provides remote monitoring of the line via smartphone and tablet. It has been developed in accordance with Industry 4.0 principles and uses IoT technology in its production data collection and monitoring functions. A series of tools simplify the control and management of the plant and are claimed to improve its productivity, safety and cost containment.

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