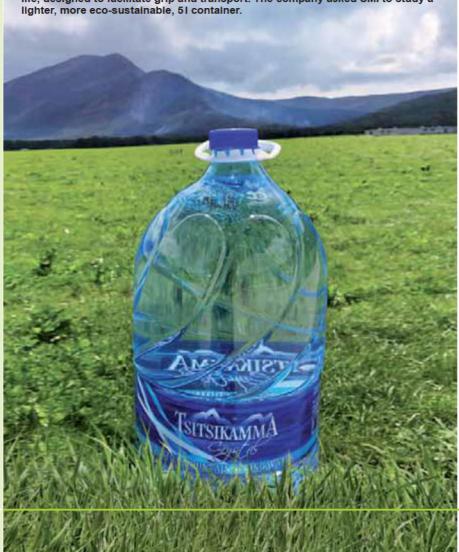
### The market for bottled water in South Africa

## The artistic aspect of the bottle

An imaginary landscape, a magical, spellbinding place, that has insipred legends of mermaids that live with dolphins. otters and whales. But if the mermaids are a legend. the magical beauty of the environment is a breathtaking certainty; the certainty of being in the Tsitsikamma nature reserve, a long, narrow area that stretches for 75 km along the coast of the Eastern Cape, in South Africa. In this wonderful landscape, where pure, transparent water flows, starting in 1997, entrepreneur Judy Woodgate has bottled spring water in a modern installation sold under the brand Tsitsikamma Crystal Spring Water. Today this South African company, which has its head office in the town of Witelsbos (150 km west of Port Elisabeth), is one of the main local realities in the sector of bottled beverages and to satisfy the growing demand for spring water it recently installed a new integrated system Ecobloc Ergon for blowing, filling and capping of 51 containers, supplied by SMI.

Tsitsikamma Crystal Spring Water use bottles with a sinuous design and long life, designed to facilitate grip and transport. The company asked SMI to study a lighter, more eco-sustainable, 51 container.



Recent data released by the European Federation of Bottled Water (EFBW) shows a global market growth at a much faster speed compared to the soft drinks market. This trend is predicted to last until at least 2022 and, therefore, it is right to expect that even in South Africa, the bottling industry is destined to grow, even if the sector has only been developed recently and has fewer consumers compared to those registered in more consolidated markets. In fact, the population of around 56 million South Africans drink 2.5 litres of mineral water per head annually, compared for example, to the 60 million Italians who consume 147 litres per head.

The decision taken by Tsitsikamma Crystal Spring Water to invest in the purchase of a new blowing, filling and capping sytem supplied by SMI sprang from the necessity to intercept the trend in market growth and be ready to satisfy the greater request for bottled water. Currently in South Africa, the bottled water sector is made up of a few, large producers that have automated plants, and by a greater number of small bottlers, where production envisages manual operations beside the use of automatic or semi-automatic machinery.

There are around 100 companies in the sector, which produce over 270 million litres per year, with stable growth predicted, thanks to more consumer attention towards a healthier lifestyle and to a more frequent choice to quench thirst with natural water instead of carbonated drinks. In South Africa the quality of bottled water is protected and controlled by several regulations, which are vigilated by important organisations like SANBWA (South African National Bottled Water Association).

#### Lightweight 51 container

To bottle their branded natural mineral water, Tsitsikamma Crystal Spring Water use bottles with a sinuous design and long life, designed to facilitate grip and transport. Starting from a project of bottles already in use, the South African company



John Faul, Director of the Tsitsikamma Water Plant and Doug Woodgate, Owner of Tsitsikamma Water (from left)

asked SMI to study a lighter, more eco-sustainable, 5I container.

Keeping the the look almost unchanged, the SMI designers "downsizing" the bottle to create a lighter container dropping from a total weight of 96.5 g to 72 g. They added some expedients that will allow it to be reduced further to 64 g. Compared to the original version, the neck has been modified dropping from 48 to 38 mm without changing the original shape, the base, the shoulders and the decoration.

#### Bottles to protect and store

Product quality is an essential element for the success of Tsitsikamma Crystal Spring Water, therefore, the use of containers that protect and store the purity of the bottled water is a fundamental requirement of their activity. To bottle, store and market the water from their springs, the South African company uses bottles in PET. It is rigorously tested according to guide lines from the "Food and Drug Administration (FDA)", the American governing body that controls food and pharmaceutical regulations.

#### Solutions for Tsitsikamma

To satisfy market demand for water bottled in large containers (5 litres), the company invested in a new integrated system from the Ecobloc Ergon HC

EV range supplied by SMI to produce, fill and cap high capacity containers in PET, in shapes that vary from the most simple to the most innovative and complex. Stretch blow moulding, filling and capping of the 5I PET containers with natural mineral water happens at a production capacity of up to 3,600 bph. The SMI system is known for integrating the stretch blowmoulding, filling and capping in a single machine, by offering economic advantages as it does not require a rinser nor conveyors between blower and filler and accumulation; electronic operational control, motorised stretch rods. and the use of high efficiency valves controlled by flowmeters; the stretchblow moulding module is equipped with a counter pressure air system that reduces energy costs caused by producing high pressure compressed air; energy efficiency, thanks to the IR lamps mounted on the preform heater module; low costs for maintenance and installation management.



Tsitsikamma Crystal Spring Water has its head office in the town of Witelsbos, 150 km west of Port Elisabeth.

# PROCESS PILOT REDUCE ENERGY COSTS

Agr's patented closed-loop blowmolder control technology allows you to optimize blowmolder operation, saving energy and still produce consistent, high-performance PET bottles.









It is to expect that in South Africa, the bottling industry is destined to grow, even if the sector has only been developed recently.

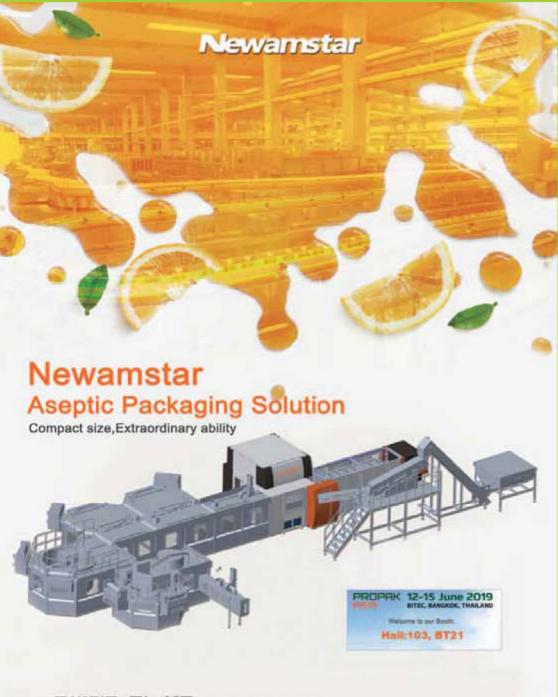
#### Apa eral wa expect Tsitsika South

Apart from producing natural mineral water the South African company Tsitsikamma Crystal Spring Water, also offers a wide range of flavoured water, which represent a healthier alternative to soda beverages which are characterised by their high content of sugar and caffine. The market launch of this new line of products came after many years of company

Flavoured water for every taste

research, during which, Tsitsikamma Crystal Spring Water worked with the best experts of the sector, who carried out countless tasting tests until they reached a combination of tastes and flavours, able to seduce the palate of a wide range of consumers. And this is what happened, because now consumers in South Africa can buy a wide range of flavoured beverages within the Tsitsikamma brand without losing the healthy properties of spring water.

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