

Vaud and the Surrounding Area - Broye

The inventor who produces spring water from a tap

Entrepreneurship

The Sonatec water treatment system, which was awarded a gold medal at the International Exhibition of Inventions, will be produced in Broye and marketed on a large scale.

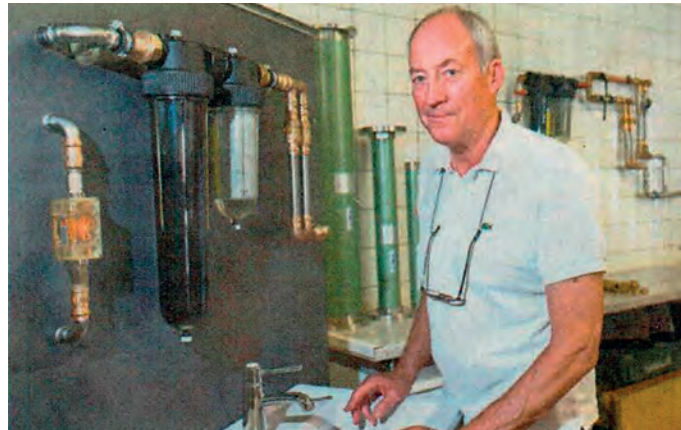
Gilbert Sonnay is one of the Vaud district's most highly decorated inhabitants thanks to his inventions. At 68 years old, he has gleaned 18 medals, including several of the gold variety. His specialism: water treatment. More than just a passion, it's what he lives for. The inventor-entrepreneur based in Lucens is a fountain of knowledge on the subject. For thirty-seven years, he has been researching and developing his own tap water purification system. Today, he is launching the 10th generation of his ecological device.

He is obsessed with making tap water taste more like spring water: pure, smooth and energising. An obsession which has led him to create an alternative to the conventional water softener - a compact and environmentally-friendly installation that uses no salt, chemicals or electricity. His patented system, known as Sonatec Plus, was awarded a gold medal at the International Exhibition of Inventions in Geneva in 2012. Manufactured in the Broye district, it "reduces limestone deposits by 80% and stabilises rust at just 98% in older installations whilst maintaining the water's natural properties, in particular its mineral content".

The failings of drinking water networks

The complete installation includes an active carbon filter which removed micropollutants, traces of chloride and sediment (iron, lead and plastic elements) from the water network, as well as solvents used in the manufacture of plastic pipes. According to the inventor, if water reaches your tap in less-than-perfect condition, this is largely due to the network pipes being blocked with lots of sediment, amongst other things.

Sonnay began marketing his first products in the 1980s. However his company, which worked with wholesalers who were very interested in his patents, suffered a number of setbacks and it went under several times. But this hasn't stopped him from



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continuing to make improvements. An inventor to the core, Gilbert Sonnay wants to develop his complex scientific research even further to achieve new levels of perfection. And this even though his device was perfected a long time ago, as confirmed by tangible results both in terms of health benefits and the service life of the installations.

Applying science

The entrepreneur started down this path in 1980 when he began distributing water softeners made in the USA. But these systems fell short of his expectations. Calling upon the expertise of two scientists - a physicist working at the UNIL and the EPFL, and a doctor of organic chemistry, responsible for adapting the operational formula

to water- he spent 10 years trying to apply the theories and equations of the scholars who inspired him and in particular the phenomenon known as magnetohydrodynamics. A precision engineer helped him to design the mechanics of the installation. "The system works through controlled interactions with the moving water via magnetic fields created by magnets," explains the inventor. It prevents calcium and magnesium deposits - which form limescale - from building up in the pipes and forming tartar. Gilbert Sonnay has steadily improved the technology used in the device influenced by the speed, temperature and hardness of the water.

"Initially, I couldn't care less about the price," he says. "I tried to reproduce exactly what the theory

said in order to create water that was as close as possible to spring water". It's a question of reproducing a natural phenomenon and therefore one important factor is the flow rate of the water passing through the pipes, of which there needs to be at least two. According to the entrepreneur, for the system to function correctly, the valves must be adjusted once a year and the installation must be properly maintained, particularly the filters. His water treatment solution is not just a product but also a service - providing water that tastes as good as it does at its source. Therefore, the company's Lucen-based employees are as much trainers as they are salespeople, following the example of Florie d'Eternod, a manager of the Fribourg and Vaud districts for Sonatec Switzerland. Sonatec's main customers are property owners, detached houses, condominiums, as well as local authority buildings and even a local grand hotel.

When tasting it, Gilbert Sonnay describes his water as "rounder, smoother and more pleasant to drink. It contains a good balance of mineral salts, so it is really energising. Even a hard, heavy and harsh water can become light and harmonious upon leaving the device." According to him, it totally replaces the need for still water sold in bottle.

Jean-Marc Corset

Systems soon to be manufactured in the Broye district

Full of vitality, Gilbert Sonnay - who describes himself as a socially responsible ecologist but not a purist - took over his father's garage before branching out into the gas industry and then plunging into water treatment. Although he is satisfied with his "baby" in which he is said to have invested 2 million Swiss francs into its research and development, he is yet to play his last card.

With this latest prototype, which is currently being tested, he promises to further improve the treatment of micro-pollutants and drugs thanks to a new filtering solution. This solution can be integrated into installations already in operation by making a few simple modifications.

At the same time, he has been working on improving his water purification system for disaster situations. This system is intended for the army and will be tested by an NGO using Genevan water from the Arve.

He also planning to move onto the second phase of his expansion project by relaunching his products in German-speaking Switzerland and abroad.

From the end of September, all devices will be manufactured in the Broye district. Thanks to a generous sponsor, Sonnay has the finances in place to set up a small factory in Billens (FR), which will see his workforce grow to twenty employees.

In figures

The cost of Sonatec Plus is the same as a conventional high quality softener, claims the inventor, which is **between CHF 4500 and 5000**, plus annual maintenance which comes to around **CHF 200** (for a detached house) with a 10 year warranty. More than **84,000 devices** have been built since 1980, including **1200** of the latest generation model. Between 1980 and 1990, he sold almost 10,000 pieces of the first generation model per year before his company ran into difficulties. The business was relaunched in **2010** and today Sonatec has **seven employees** as well as two independent partners. The company currently sells **250 installations per year** throughout French-speaking Switzerland which equates to a turnover of around **CHF 800,000**.