

Worldwide clean drinking water with sustainability factor

Wayout – a drinking water system for local extraction and distribution of mineral water with reusable stainless steel kegs

Neunkirchen, 30th November 2023. Water from disposable bottles consumes two thousand times more energy than tap water. Every day, 1.4 billion plastic bottles are transported and sold around the world, with a recycling rate of less than ten percent. Swedish high-tech startup Wayout aims to empower hotels, restaurants, schools, hospitals and eventually entire communities to produce their own fresh mineral water on site. Now, a decentralised water treatment plant has been commissioned in Madagaskar. The microfactory is powered by solar energy, reducing the water treatment's eco-footprint to zero. The mineralised drinking water is distributed via robust reusable stainless steel kegs from SCHÄFER Container Systems.

Wayout's solar-powered microfactories treat water from any source, including seawater. The purified water is mineralised – the amount of trace elements it contains is ideal for taste, according to the company – and distributed in reusable stainless steel kegs. The kegs and microfactories are digitally connected in independent proprietary networks, whose data are used to ensure water quality and optimise the distribution cycle.

The turnkey plants can be quickly installed and commissioned in most places in the world. One micro plant treats up to 20,000 liters of water per day, enough to meet the daily drinking and cooking water needs of an average of 3,000 people.

Local circular economy is an integral part of the system

"Our engineers have designed the system to function for at least 30 years. This also corresponds to the average service life of the stainless steel kegs used, which we have integrated into a recirculation system. As a privately owned company, we market the drinking water solutions through leasing contracts including services," explains Ulf Stenerhag, founder and CEO of Wayout.

SCHÄFER Container Systems supplied 250 slimline 10-liter Eco Junior kegs for the project in Madagascar. The small kegs are filled in the micro plant, brought to the installed water dispensers and placed on them. A mechanical and a digital key unlock the keg, which

ensures tamper-resistance. In addition, a mechanical seal ensures hermetic sealing, thus ruling out the possibility of subsequent water contamination. Each keg is uniquely digitally identifiable from the factory via near field communication (NFC). The keg's unique digital identifier reaches the Wayout-platform in the cloud in real time. In addition, volume, temperature, and time can be read out via a sensor.

Simple operation with transparent process and logistics chain

Data analysis in the cloud allows the optimisation of logistics. At any given time, the location and usage is known. Empty kegs can thus be replaced in good time and returned to the microfactory. The drum cleaning unit disinfects the inside of the kegs without chemicals using ozone before refilling. The O₃ molecule consists of three oxygen atoms and decomposes into oxygen, a natural component of water (H₂O).

Reusable kegs are a decisive competitive advantage in the beverage industry due to their practical benefits and economic as well as ecological advantages. Compared to disposable containers, stainless steel kegs save harmful emissions, with around 400,000 tons of greenhouse gases already saved in the USA. This is equivalent to around 500,000 tons of plastic packaging. Considering that PET bottles already take 450 years to decompose even under the influence of UV radiation, is staggering.

"From our point of view, Wayout is the start of a desirable revolution in sustainable drinking water treatment and distribution of mineralised water. We are very pleased that we can play a part in this and that our proven kegs with NFC technology will be used as distribution enablers," says Guido Klinkhammer, CEO at SCHÄFER Container Systems.

Images and captions:

Fig. 1: Wayout_Bild-1_(c)_Schaefer-Werke-GmbH.jpg

Caption: The microfactory is powered by solar energy, reducing the eco-footprint of water production to zero.

Fig. 2: Wayout_Bild-2_(c)_Schaefer-Werke-GmbH.jpg

Caption: The water is distributed in lightweight 10-litre Eco KEGs from SCHÄFER Container Systems, which are disinfected and refilled in the microfactory.

Fig. 3: Wayout_Bild-3_(c)_Schaefer-Werke-GmbH.jpg

Caption: The KEG is placed on a dispenser where a mechanical key unlocks the sealed drum.

Fig. 4: Wayout_Bild-4_(c)_Schaefer-Werke-GmbH.jpg

Caption: Perfect drinking water anywhere in the world: clean, safe, cheap, plentiful – with a balanced pH value and balanced minerals.

About WAYOUT (www.wayout.com):

How the microfactory works: [Click Wayout Microfactory](#)

About SCHÄFER Container Systems (www.schaefer-container-systems.com/en/):

SCHÄFER Container Systems, an innovative manufacturer of high-quality, fully recyclable container systems (KEGs) for beverages and of IBCs and special stainless steel containers for liquids, solids and granulates, is part of the internationally successful SCHÄFER WERKE.

The family-run SCHÄFER WERKE Group, headquartered in Neunkirchen in the Siegerland region, operates globally with diversified business units: EMW Stahl-Service-Center, Perforated Metal, Container Systems and Industrial Containers, Infrastructure for Data Centres, and Office and Workshop Equipment. These divisions work on the common basis of high-quality steel sheet, the processing of which is one of the company's traditional core competences.

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