Swiss firm introduces technology for water purification

Instant purification of contaminated water up to 1,500 litres per hour using solar and/or wind energy, into clean 100 percent bacteria and viruses free drinking water from boreholes, lakes or river sources, without application of chemicals, for less than one US dollar per 1,000 litres is now be possible.

'TRUNZ WATER SYSTEMS', a Swiss company represented by 'WATER PURIFICATION SYSTEMS LTD' in Kampala is manufacturing a number of custom made purification systems, equipped with 1,000 micron prefilters and a membrane filter in the molecular range of 0.04 micron. It goes of course without saying that the purified water does not have to be boiled anymore.

The entire purification cycle is fully automatic and backwashes the filters after a preset level of clogging has been reached. This comprehensive filtration concept not only 'washes' the raw water but it also eliminates any bacteriological contamination such as bacteria, viruses, cysts etc. Another feature of the 'Trunz' disinfection system is that essential minerals such as calcium, magnesium, sodium, potassium etc. are not filtered-out by the process.

With water increasingly becoming a scarce commodity, and with continued contamination of whatever sources available, the provision of pure, hygienic water safe for drinking is a major global challenge.

Water-borne infections continue to ravage a high percentage of people in poor and inaccessible neighbourhoods. Neither are those in urban centers spared, with water supply networks often falling short of the standards expected to ensure a 100% pure water supplies.

Cost is a major constraint, with elaborate piping systems required to transport raw water from storage dams to purification plants and then onwards to consumers, often with no guarantee of re-contamination before reaching dispensing points.

Add to that the fact that more than 95% of the world's water sources are salty and the situation gets dire.

Households, institutions and governments ultimately need to adopt technologies that make water purification simpler, effective and affordable.

A solution now appears at hand, courtesy of a Swiss firm Trunz, which has introduced a simple, efficient and low-expenditure technology that can purify fresh, sea, water from lakes, pans, rivers or boreholes into 100% bacteria-free, sparkling-clean drinking water at source.

Represented locally by Water Purification Systems Ltd with its headquarters in Kampala, Uganda, Trunz avails to individuals, institutions, local authorities, governments and other consumers mobile water purification units that can be easily assembled at water sources to give instant, on-site purification. The units are compact, mobile, and integrate water treatment and desalination systems that ensure that literally any water can be turned into a safe consumable.

With Trunz water purification units no expensive piping is required, which ultimately cuts considerably on costs and makes them ideal for disaster relief, military camps and areas without traditional infrastructure.

What is more, they come with inbuilt solar panels and/or wind generators to tap into free solar and wind energy, freeing them from the need for infrastructure thus making them usable virtually anywhere. For emergencies, like when there is little or no sunlight and the wind is low, they are also fitted with a small backup emergency diesel generator.

The units are easy to install, taking only a few minutes, need minimal maintenance and are exceptionally energy efficient. They are equipped with self-cleaning, 100-micron stainless steel pre-filters, plus one-membrane 0.04 micron filter, a combination that results in a unique filtration concept that not

only 'washes' raw water but also eliminates contamination by bacteria, viruses, cysts, etc. The entire filtration system is installed in a lockable weather-proof housing the size of a fridge.

No chemicals are used in the purification, applying instead the latest ultra filtration technology. This ensures that the purified water retains all the essential minerals like calcium, magnesium, sodium and potassium.

The purification costs are rock-bottom, costing less than a US dollar per 1,000 litres, while the annual capacity is approximately 10.1 million litres.

Trunz water purification systems are in use in many parts of the world, including Mauritania, Nigeria, South Africa, Madagascar, Uganda and Sudan in Africa.



WATER SYSTEMS SWISS MADE



Trunz Water Trailer - a mobile solar powered water treatment plant for disaster relief & military application

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