

# ENVIRO-PURE™ PRESENTS:

## Next Generation *smartUF*, Compact Ultrafiltration Systems for Stand-Alone Applications with Fully Automatic Backwashing and Flushing Program

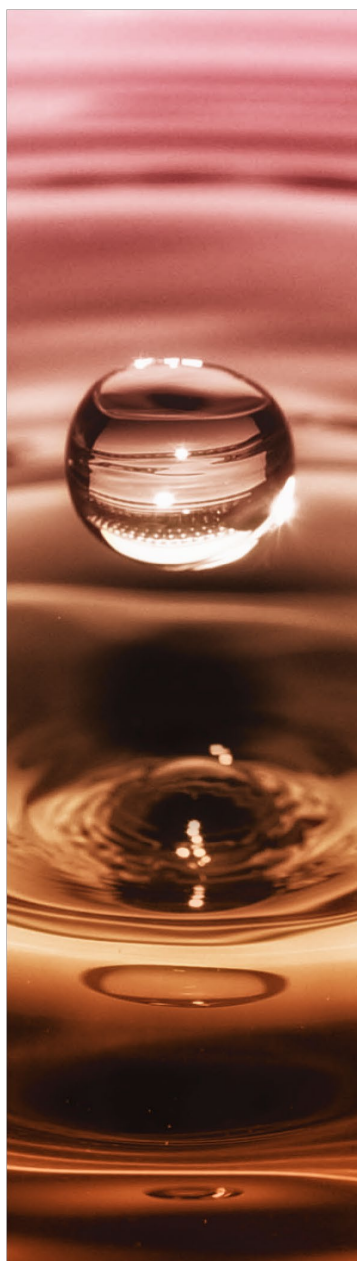
With specific Asian conditions in mind, such as climate, remote locations, lack of operator skills, in 2012 *smartUF* Series was developed with our partners in The Netherlands, world-leading specialists in consultancy, design and development of membrane-based technology for purification of water in the broadest sense .

From 1975, Ultrafiltration(UF) technology became State-of-the-Art for municipal and industrial water treatment, now replacing many of the century-old traditional methods for water purification, requiring a fraction of space, no permanent use of chemicals, low maintenance and above all, much better results in removing bacteria, viruses and other POLUTANTS such as Micro-Plastics, delivering a safer, healthier product, complying with, and often exceeding WHO- and National Standards for potable water, at the same time saving millions of tons of plastic bottles .

Based on 40+ years experience with Ultrafiltration we were able to make significant steps in automating the systems and miniaturizing the required components for operation under difficult conditions without sacrificing reliability and robustness, at the same time reducing power requirement and thereby offering unique solutions .

We were able to down-scale UF for small, remote applications, often powered by solar-systems, to supply safe drinking water from almost any source to villa's, condo's, villages, settlements, camps, resorts, hotels, clinics etc .

*smartUF-BOX Mark 2* is the smallest of a range of standardized systems with capacities up to 12 m3/h .



### Technical specification

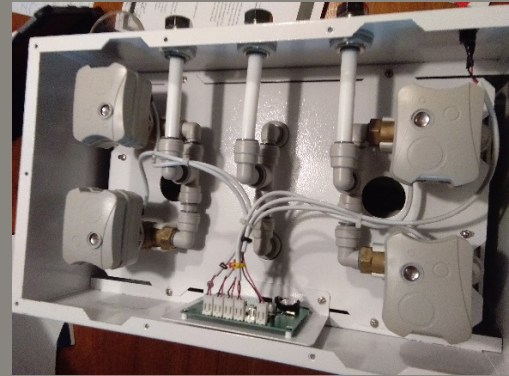
#### *smartUF-BOX Mark 2*

Maximum pressure	600 kPa
Normal operating pressure	200 kPa
pH range	2 - 10
Maximum allowable free chlorine	long term 5 mg/L short term 300 mg/L
Operating mode	dead-end, inside-out
Operating temperature	< 40 °C
Membrane material	hollow fiber 1.0 mm PAN double wall
Membrane area	2x 1.5 m <sup>2</sup>
Pure water flow @ 100 kPa / 25°C	0.6 m <sup>3</sup> /h (10 L/min)
Size (LxHxW) in mm	440x265x220
Weight	12 kg
Electrical connection thru plug-in power adaptor supplied with unit.	110/230 VAC – 6 VDC / 3 W
<b>Safe low-voltage, no risk of shock!</b>	
Solar/battery operation optional.	

We reserve the right to make technical changes without notice in the interest of constant improving our Products and their performance!



Front/side view:

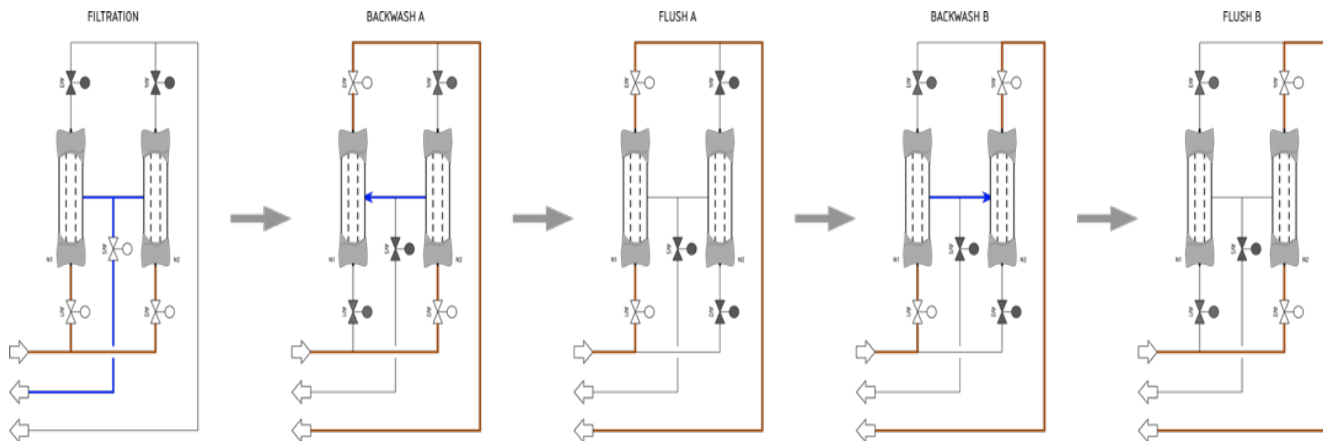


Internal view with backplate removed:

Units may be installed upright as shown or with ½ inch M BSP connections on top or bottom to suit situation.

**smartUF Systems** have a unique and unparalleled automatic backwash(BW)- and forward flush(FF)-arrangement operated by a time-controlled micro-processor. Contrary to traditional, primitive UF-systems, no manual cleaning or shaking with chemicals is required under normal circumstances. No separate pump or clean-water tank is required to perform the BW and FF cycles to clean the membranes optimally and restore capacity, ensuring a minimum of downtime and operator interference. We have designed our systems to be operated and maintained by unskilled man/womanpower with a minimum of training/instructions. **smartUF-BOX Mk 2** has a simplified processor, programmed to perform a BW/FF cycle once in 24 hours because the system has been designed to treat ground-and tap-water that contains low levels of (solid) impurities (Total Suspended Solids-TSS). In case increased levels of TSS are expected consult us for extra number of cycles or other options. **smartUF** can be installed after feed-pump (submersible or self-priming), booster, or gravity-feed and connected to storage tank float valve or directly to taps. In case of no-flow, system stays in stand-by mode without power consumption and immediately responds when flow/demand is restored. Expected lifespan of membrane-filters > 2-5 million liters (530,000-1,300,000 USG). Our UF Filters are easily interchangeable and come with a limited warranty of 3 years.

Operational sequences:



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**smartUF™** is a trademark of ENVIRO-PURE(ASIA) in Thailand and ENVIRO-PURE FOUNDATION (Est. 1989) and Akvoregia BV in The Netherlands, Specialist Designers, Developers of Advanced and Innovative Water Treatment Solutions.

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