

## NUFiltration press release March 2022

*NUFiltration, an Israeli water technology company specializing in water filtration and disinfection systems, announced launching of new NUF<sup>®</sup> water disinfection systems models for farming production facilities.*

*With hundreds of commercial installations in over 30 countries, NUF<sup>®</sup> water disinfection systems provide filtration and disinfection in a single pass.*

*NUF's proprietary and worldwide patented technology, chemical free and UV free, provide 100% physical separation of pathogens.*

*Applicable for any indoor and vertical farming facilities that are using coco-peat, rock-wool, hydroponics, aero-ponics, or any other combination of cultivation.*

NUF<sup>®</sup> systems provide the best cost-value (OPEX and CAPEX) disinfection solution for:

- Pathogen firewall of raw water regardless of type of water source
- Water re-circulation collected from any growing-media and any crop

NUF<sup>®</sup> systems implement membrane-separation technology derived from equipment initially designed and manufactured for medical use. The re-used and sterilized membranes, reprocessed by NUFiltration, consist of the best UltraFiltration ("UF") membranes available in the market, being manufactured according to medical standards, assuring a filtration rate of 3.3 nm, smaller than bacteria and common viruses, and quality tested to medical standards equipment.

*NUF<sup>®</sup> membranes remove bacteria, viruses, suspended matters and a wide range of organic matters from the water in a mechanical way and without chemicals or other additives, enabling Filtration and Disinfection in a single pass and in the simplest way.*

*Thanks to removal of particles  $\geq 3$  Nano-meter/0.003 micron, the NUF<sup>®</sup> systems reject the following pathogens:*

- *ToBRFV*
- *CMM Clavibacter michiganensis*
- *Tospovirus*
- *Pseudomonas*
- *Salmonella*
- *Botrytis*
- *Fusarium*
- *E. Coli (Escherichia coli)*
- *Rhizobia*
- *Fungi and fungus-like organisms*
- *Bacteria*
- *Nematodes*
- *Protozoa*
- *Algae*

The advantages of NUF® units for irrigation recirculation:

- Water filtration and disinfection in a single pass
- 98-99% recovery of treated water
- 98-99% recovery of nutrients and micro elements already in the irrigation water providing stable EC and tremendous savings in water and fertilizers costs
- Suitable for all common media including coco-peat
- Continuous water productivity regardless of the feed water quality
- Modular to any capacity, larger units more economical
- Neutral to pH of the water
- Purified water of the highest quality as potable water NTU < 1
- Reasonable operational cost, almost zero energy requirements (0.15 Kw per each 1m<sup>3</sup> of treated water)
- Years of operation between membrane replacements

## New NUF® products announcement:

- 1. NUF® hybrid:** One NUF® unit for fire-wall and for re-circulation
  - Recirculating irrigation drainage during day time and disinfecting fresh water during night time
  - Filtration and disinfection in a single pass
  - From 5 m<sup>3</sup>/h and above
  - One pump (included) serves Filtration as well as Backwash modes
  - Automatic pre filtration included
  - Fully automated touch-screen controller with option for remote monitoring and programming
- 2. NUF® multi channel:** One NUF® unit that serves multi compartments/zones
  - Multi-compartment disinfection without mixing water from different compartments
  - Available for up to 3 compartments or up to 6 compartments, from 2 m<sup>3</sup>/h and above
  - One unit doing the work of a few saving money and floor space
  - Filtration and disinfection in a single pass
  - One pump (included) serves Filtration as well as Backwash modes
  - Automatic pre filtration included
  - Fully automated touch-screen controller with option for remote monitoring and programming
- 3. @-Site NUF® Pathogen Detector:** A mobile device for on-site and immediate detection of viruses and bacteria
  - Enabling earlier detection compared to existing detection methods
  - The 3nm NUF® membrane will retain bacteria and viruses
  - Backwashing the membrane will extract the concentrated material retained on the NUF® membrane
  - The continuous Pathogen Detector filters the sampled water concentrating to 1000 times and beyond, and with the use of detection-stick provide immediate detection, eliminating the need for sending samples to the lab and the wait for the lab results
  - Suitable for all indoor crops (e.g. vegetables, medical cannabis) regardless of media