Netafim Ultra Filtration

Nutrient Recapture and Recycling

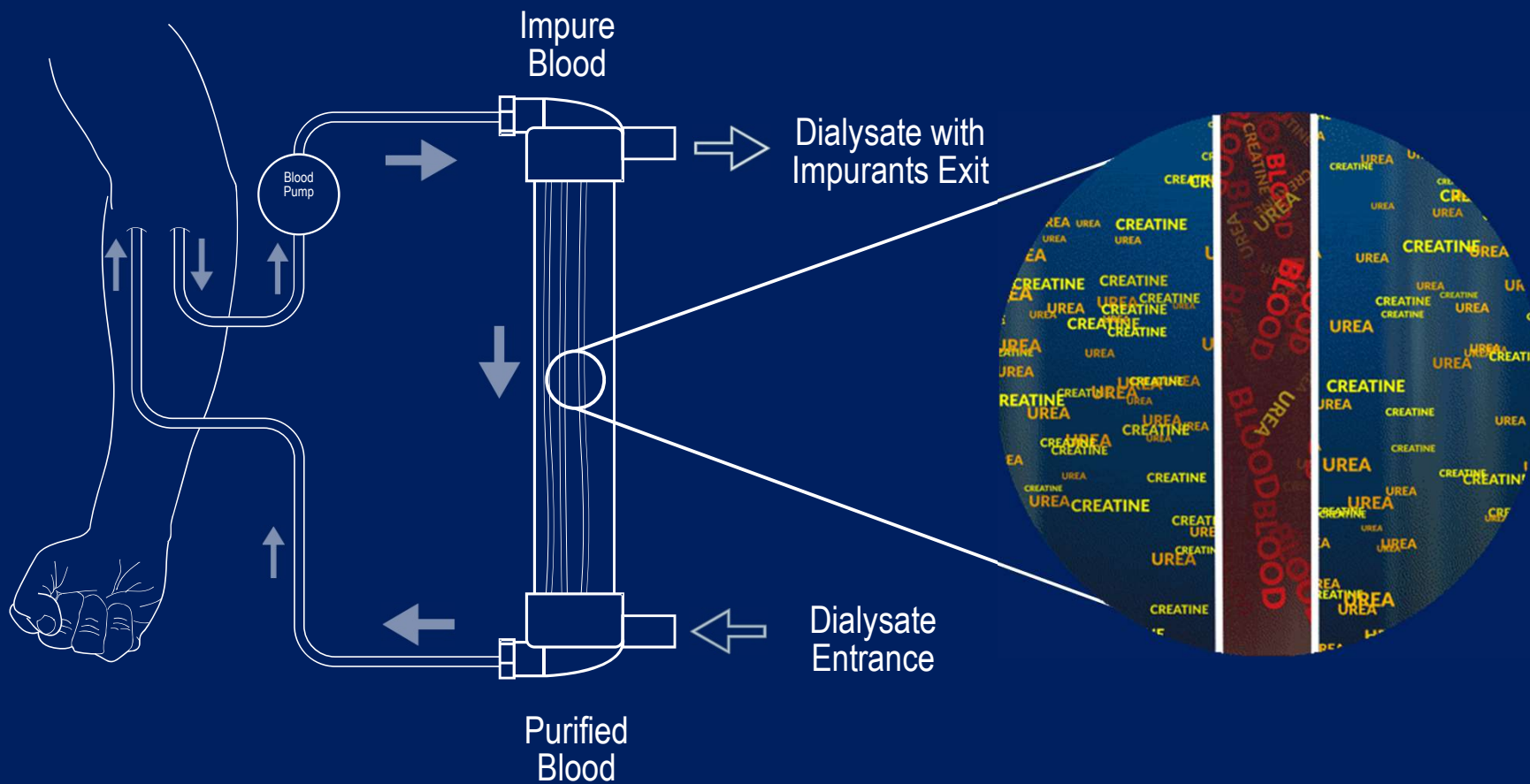**NETAFIM™**
GROW MORE WITH LESS

ARTIFICIAL KIDNEY
A medical Grade device
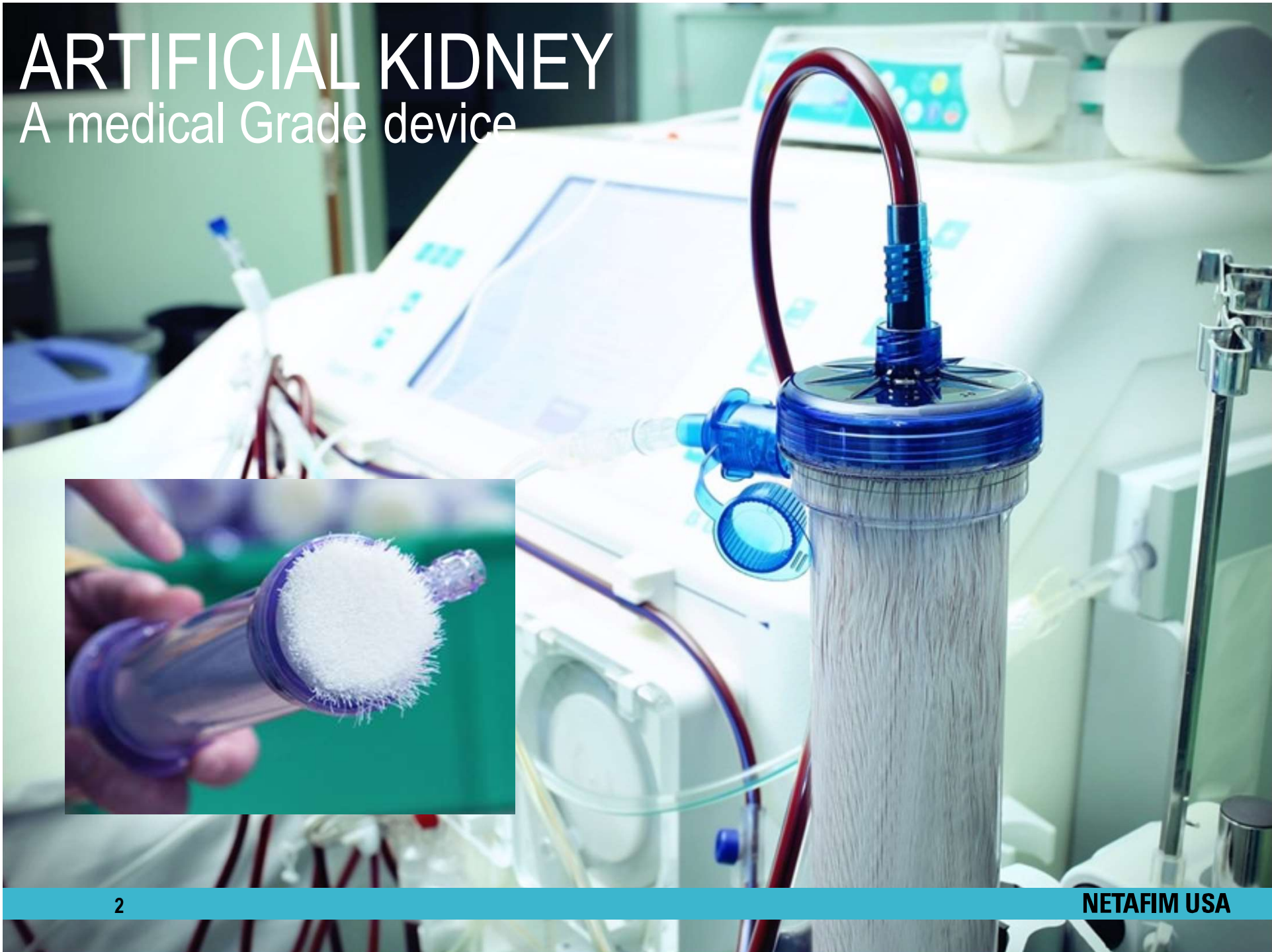
From a MEDICAL DEVICE USED FOR HEMODIALYSIS

Impure
Blood

Dialysate with
Impurants Exit

Blood
Pump

Dialysate
Entrance

Purified
Blood

PATENTED

Reprocessing by sterilization as per ANSI / AAMI standard

From a medical grade device
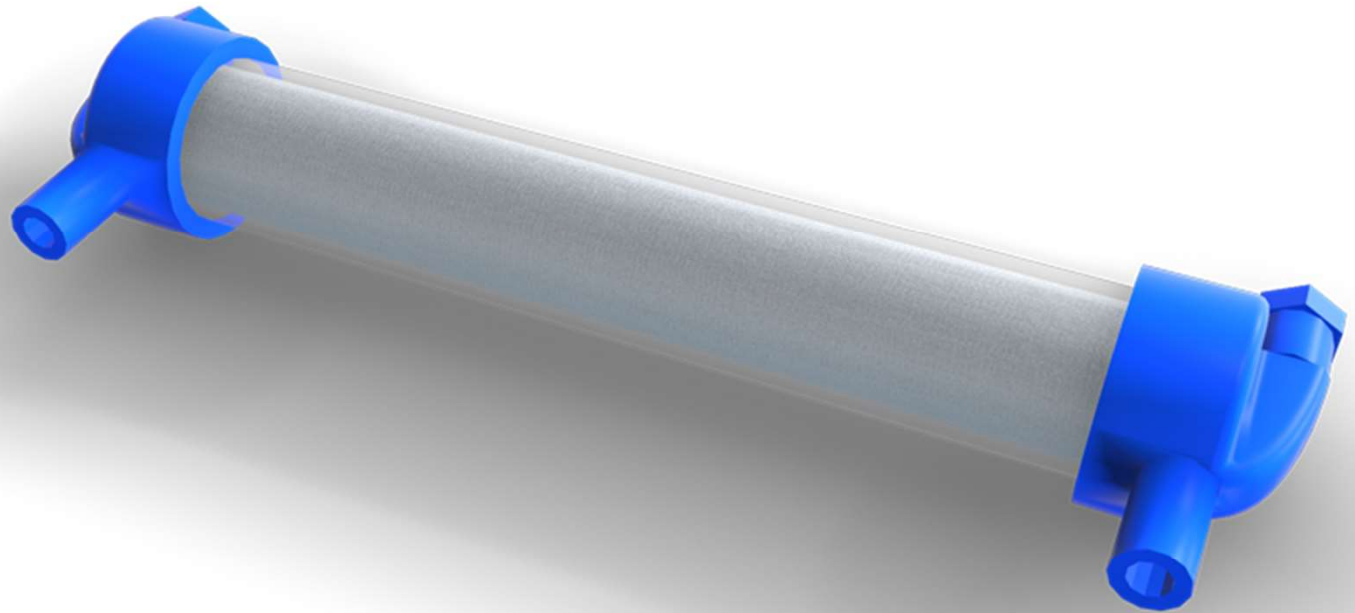
NUF
MEMBRANE CHARACTERISTICS

- ABSOLUTE filtration rate of 30 nm => 0.03 MICRONS

- Smooth membrane surface => low fouling and extremely easy to clean

- Robust: more than 3 years of continuous operation (and going on)

- Easy scalability : 8.33GPM, 20GPM, 40GPM

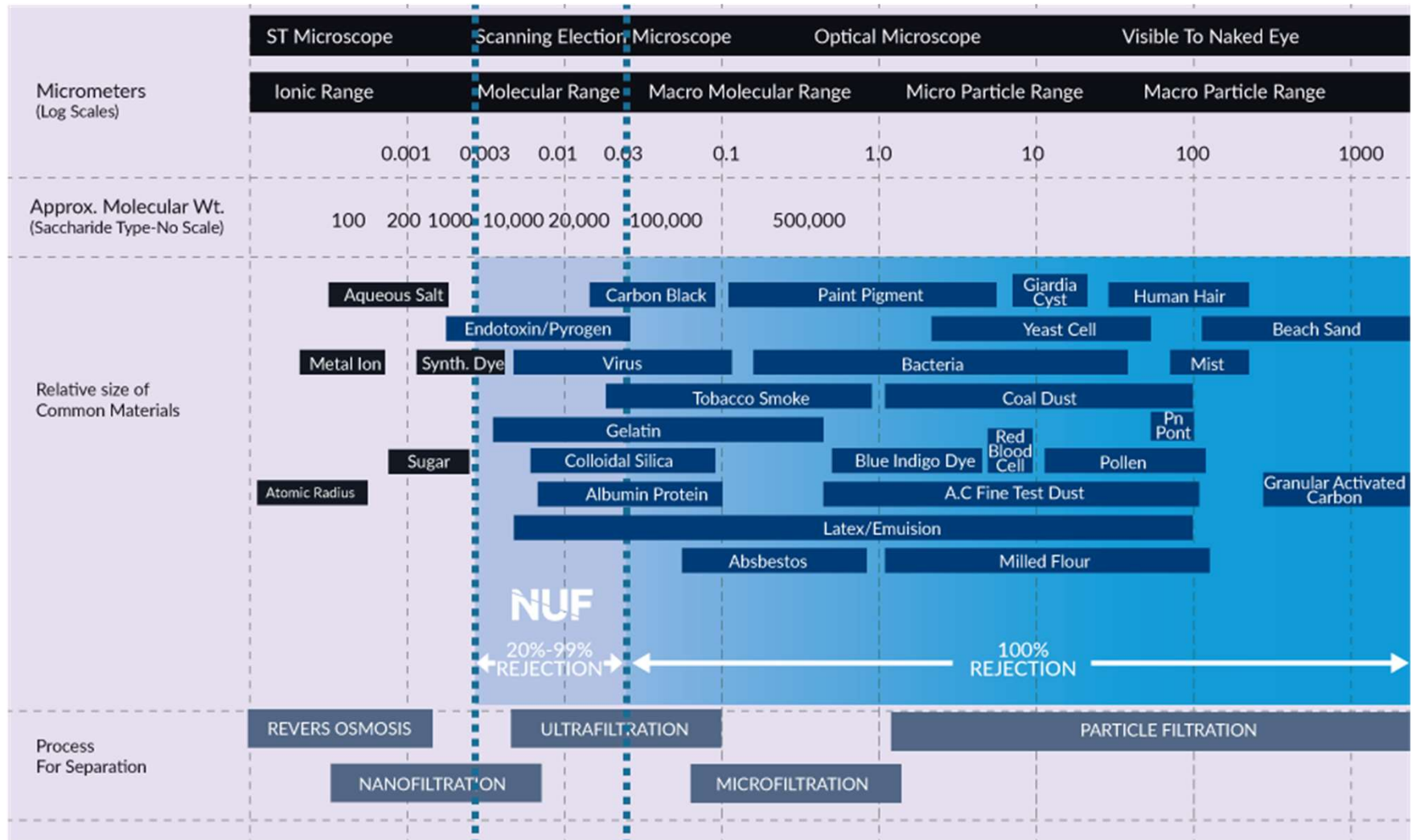# ON THE FILTRATION SPECTRUM
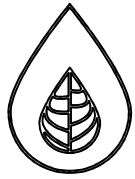
REMOVAL OF PLANT PATHOGENS
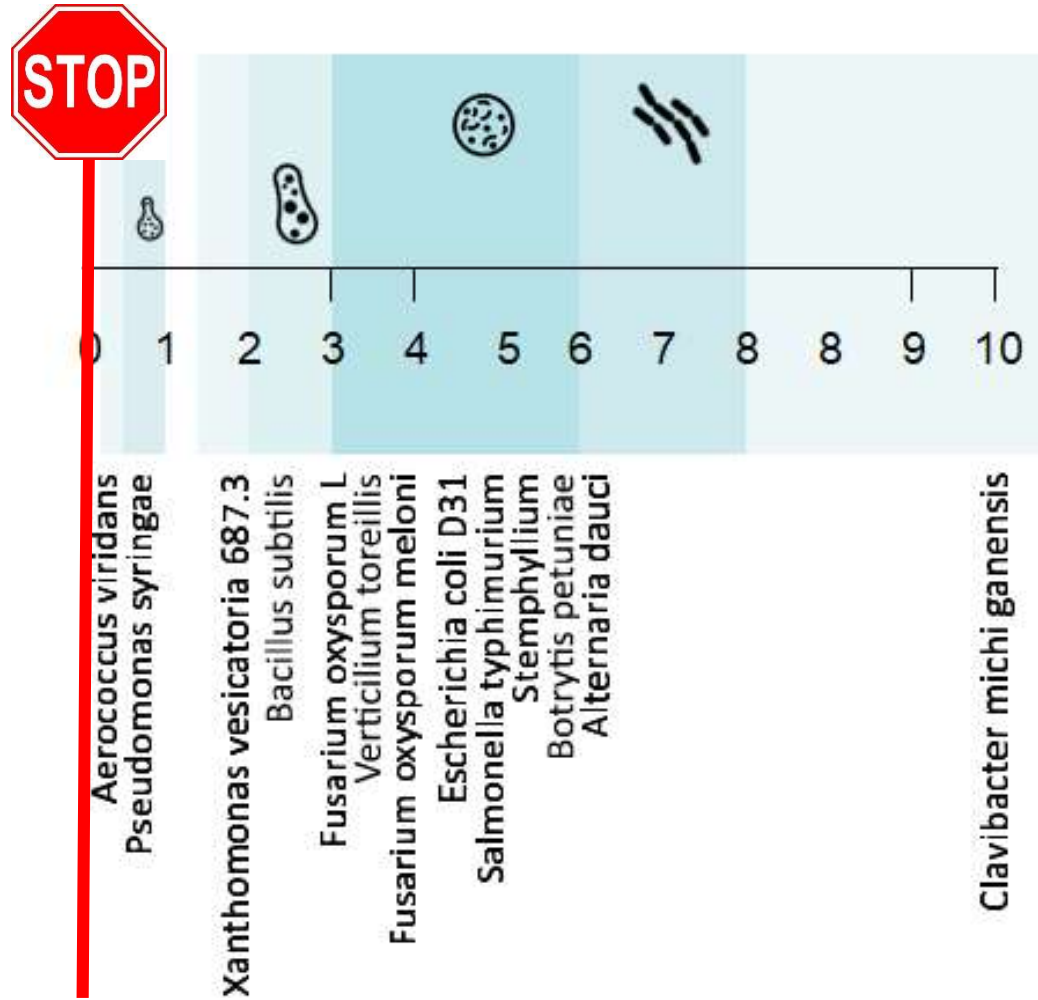
Nutrient water re-use

- ✓ Re-use 98% of nutrient water
- ✓ Remove pathogens
- ✓ Keep fertilizers and micro elements in-tact
- ✓ Without using chemical, thermal, or biological treatment
- ✓ Minimal, almost no-cost, energy requirements

COMPARE TO OTHER METHODS

UV
Statistical pathogen removal.
Performance deteriorates with turbidity.
Change structure of water contents.
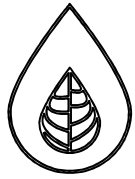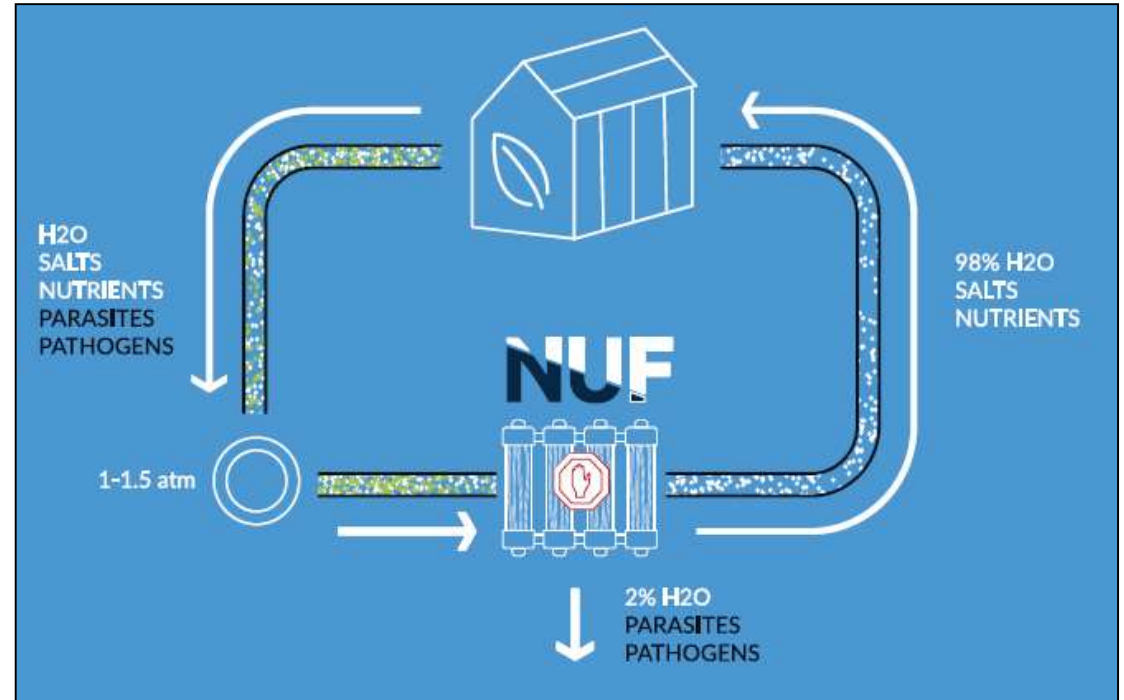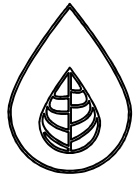Electric consumption.

OZONE
Decrease of pH to 4
Concentration of ozone
Algae formation
Not possible to process automatically

Heating
Decrease of pH to 4
High costs of energy and maintenance

Bio sand filter
Limited application (selective disinfection)
Small volumes
Maintenance intensive (tanks)

ECA
At increase of disease pressure - no automatic adjustment possible

- **Absolute** Pathogen removal Regardless of water turbidity
- **Does not change** the water composition and does not harm the nutrients in the water
- **Chemical free**
- More **efficient and cost-effective** than any other solution
- **Simple, safe for usage and long lasting**
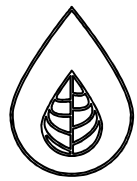
CASE STUDIES

Greenhouse water re-use – Israel

For over 20 years SHEFER NURSERY were re-using water in their 10 Ha nursery, first using UV treatment for a decade, then switching to Thermal treatment in order to reduce running & operational costs.

SHEFER NURSERY is now using NUF™ membranes for 2 years, cutting the running-costs by more then 80%, without compromising on results.
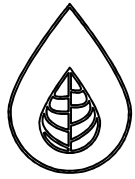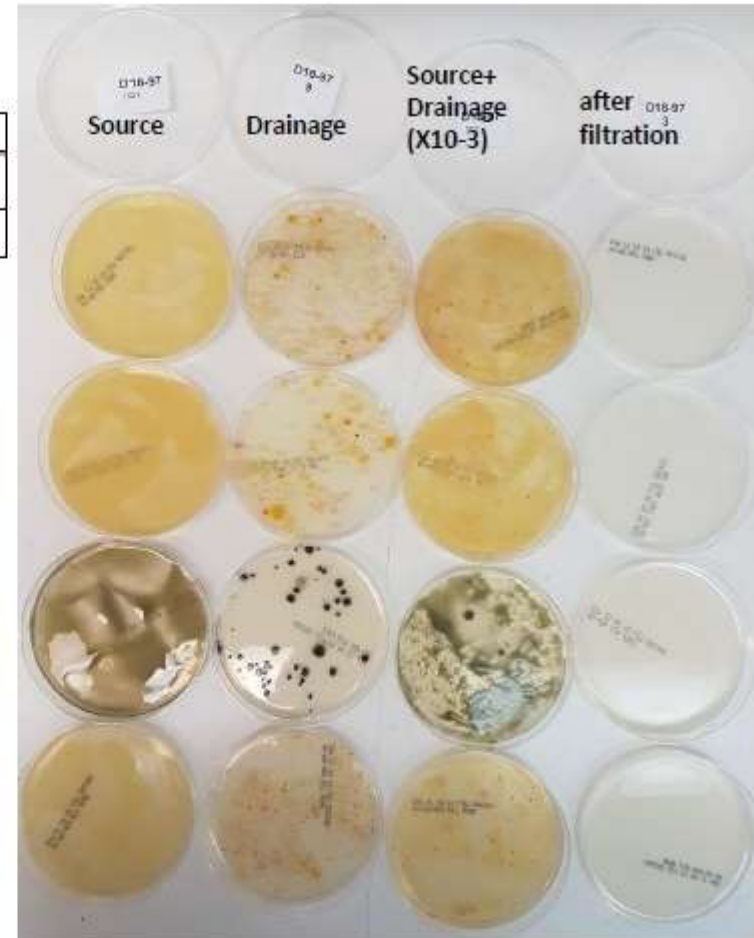
Tests (by a top 10 seed-company)

CMM

Clavibactermichiganensissp. michiganensis

Treatment	Cmm	
Source	+++	
after filtration	-	clear

Local Grower: Drain Pickup

Local Grower: Holding Area

Local Grower: Nutrient Room

Local Grower: Ultra Filtration

THANK YOU

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GROW MORE WITH LESS