



KAIROSPACE
TECHNOLOGIES

Water enhancement platforms and scientific support to boost your operations



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KAIRO-SKID

Unlock the Full Potential of Water for Precision Agriculture

Compact Power, Engineered for Efficiency

Crafted for the modern farmer, our Skid System combines advanced technology with practical design. It offers a powerful yet efficient way to manage essential gases, reducing the need for chemical inputs and supporting sustainable farming practices.

Efficient Nanobubble Generation

Experience superior water quality with our advanced nanobubble technology. These tiny bubbles significantly enhance oxygen levels, promoting healthier plants and clearer water.

Lead the Way in Agricultural Innovation

Step into the future of agriculture with a system that adapts to and enhances your current practices. Elevate your crop quality and yield with our cutting-edge gas generation technology, paving the way for a more productive and sustainable farming future.



KAIRO-SKID APPLICATIONS & KPI'S

- Super Saturate DO & Control pH
- Pathogen Control
- Clean Pipes and Emitters
- Boost or Control Microbial Activity
- Boost Crops Yields
- Optimize Inputs Usage
- Generate Disinfectant Solution
- Wastewater Treatment and Recycling

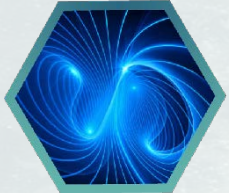
KAIRO-SKID SPEC SHEET

Clean-Tech water treatment platform that operates with the following technologies:



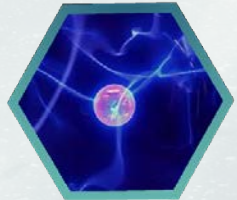
ULTRAFINE BUBBLES

- High-efficiency liquid-gas mixing
- Can operate with O₂*, O₃*, CO₂, H₂ and N₂
- *O₂ and O₃ are generated on board



WATER CONDITIONING

- Improvement of carrying capacity of salts
- Reducing surface tension



ADVANCED OXIDATION PROCESS

- Recovery of waste water through a catalyst assisted AOP.



KAIRO-SKID

TECHNICAL SPECS

OPT1 - Horizontal Dimension Footprint 44" x 60"

OPT2 - Vertical Dimension Footprint 27" x 27"

- Treatment Capacity 40-160 GPM
- Boost DO Levels up to 4X on a single pass
- Production of nanobubbles validated by Arizona State University



KAIRO-SKID

TECHNICAL SPECS

- Equipped with an oxygen concentrator and ozone generator for high-efficiency liquid-gas mixing and delivery.
- Equipped with aux gas port for connecting external gas injection sources (ie: CO₂, H₂, Atmospheric air/gas) for controlling pH, DO, and ORP levels with precision.



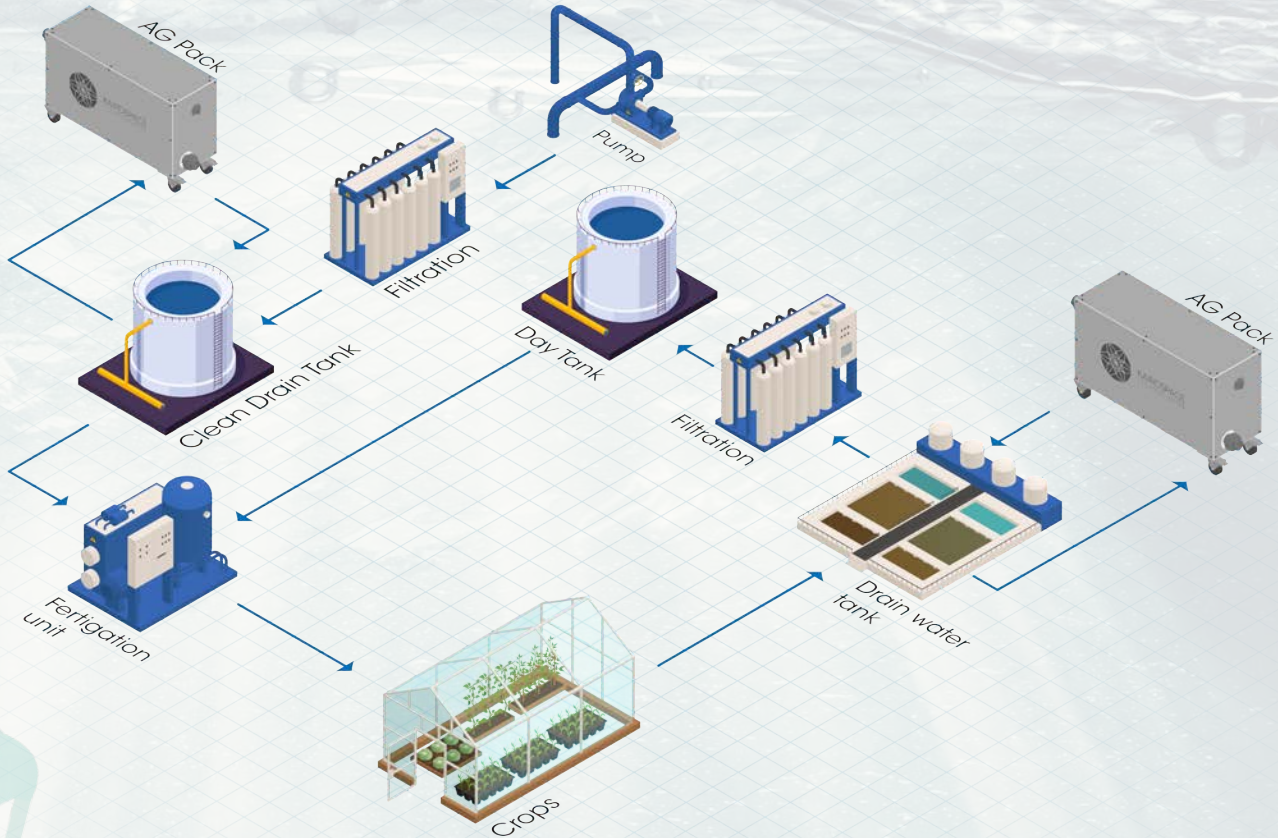
KAIRO-SKID

TECHNICAL SPECS

- Digitally integrated automation, telemetric and sensor controls, for monitoring dissolved oxygen levels in real-time.
- Adjustable DO supersaturation settings to promote precision conditioned water treatment



Easy Implementation





IRRIGATION CROPS

RECIRCULATION/FILL or MIX TANK

KST AG PACK



NURSERY/LAB BENCH

- Pressurized auxiliary output port for low flow chamber applications. Includes 3/4 hose bib spout with variable 1-4gpm @ 20psi *



Traction and Validation

CANNABIS CULTIVATION



Precision Auto Dissolved
Oxygen control



Beta Testing Locations
Humboldt, CA
Las Vegas, NV

NURSERY APPLICATIONS



Pathogen Mitigation
Dissolved Oxygen Control

2X Growth Rate

WATER AERATION

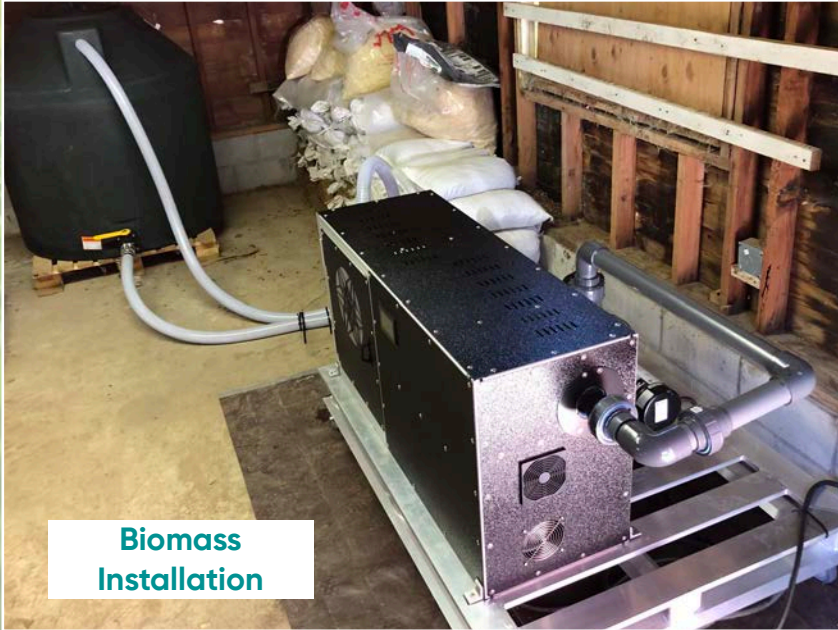


Auto Dissolved
Oxygen control



+1 year in service

PROMOTING ROOT DEVELOPMENT, SEQUESTERING MORE CARBON, AND IMPROVING SOIL CONDITION



2X
Root Development

Up to +43%
Plant Size

ENHANCING WATER PENETRATION, REDUCING SALT COMPACTION, IMPROVING SOIL AERATION



Golf Course Installation



Control



Kairospace Treated

+24%

Water Penetration

35%

Reduction Compacted Salts

ENHANCING PLANT GROWTH AND QUALITY



+35%
Fresh Weight



-10%
Time to Harvest



+15%
BRiX Levels

More crispy
texture

WASTEWATER PROCESSING



100%
Removal of Ammonia

Experimental Results on N-NH₃ Destruction Using AOP

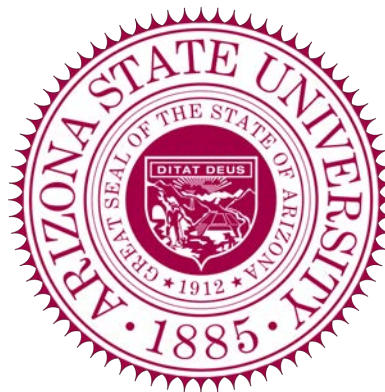
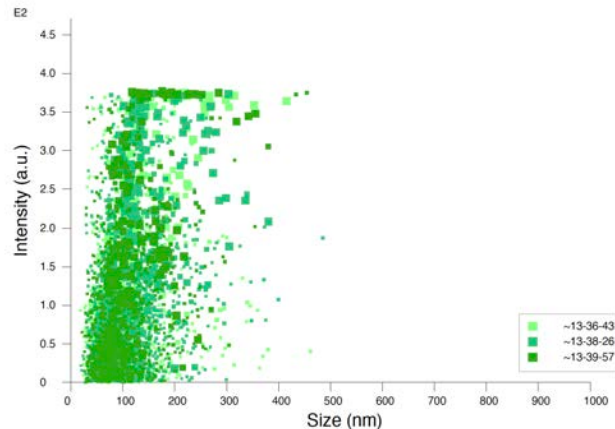
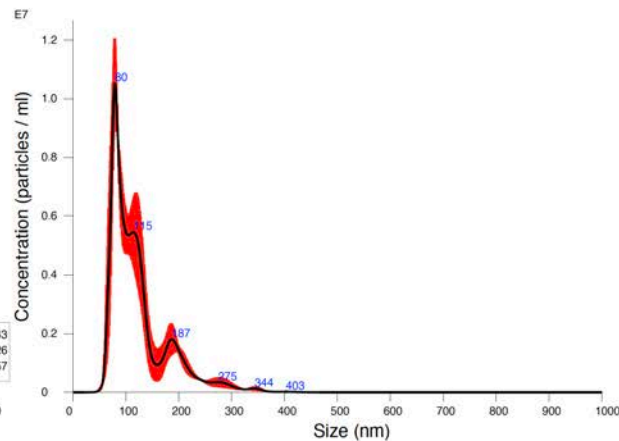
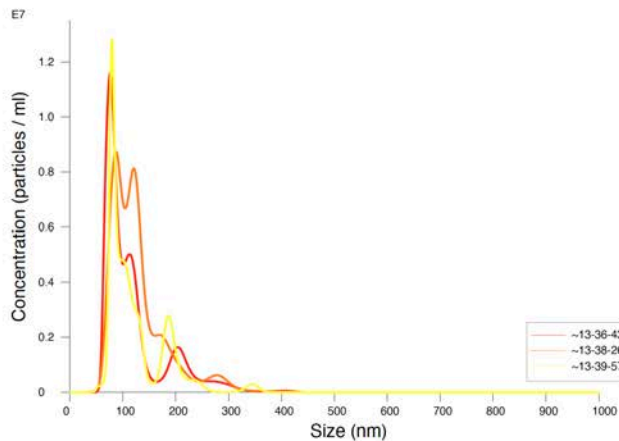


February 2nd, 2022

PHASE 2 of Validation
starting on Q1 2024

Validated by:





Stats: Merged Data

Mean: 122.9 nm

Mode: 79.4 nm

SD: 55.7 nm

D10: 74.0 nm

D50: 106.4 nm

D90: 201.3 nm

Stats:

Mean +/- Standard Error

Mean: 122.6 +/- 2.7 nm

Mode: 80.9 +/- 3.2 nm

SD: 55.6 +/- 2.2 nm

D10: 74.6 +/- 2.6 nm

D50: 104.8 +/- 5.6 nm

D90: 201.0 +/- 4.9 nm

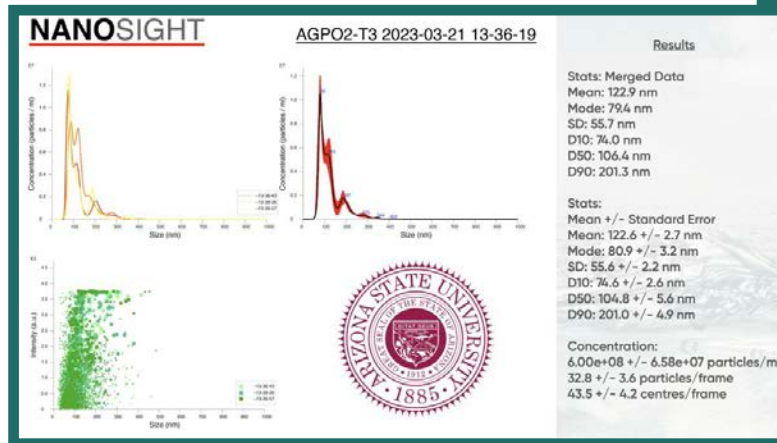
Concentration:

6.00e+08 +/- 6.58e+07 particles/ml

32.8 +/- 3.6 particles/frame

43.5 +/- 4.2 centres/frame

600 millions nanobubbles/ml + 350% DO on a single pass*



*40 PSI with injection of O₂ purity 93% with volume of gas to volume of liquid of 3.5%



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