



SUN ALGAE
Technology

Sun Algae Technology starts full operation of its new Demo – Plant

Wiener Neudorf, February 2016

Sun Algae Technology at its Austrian R&D center has recently commenced full operation of its new algae demoplant

The plant consist of 6 bioreactors, 4 are phototrophic and 2 are mixotrophic reactors. The plant is Europe's most efficient algae production plant; 30.000 liters of algae are grown on just 400 m². All components are full industrial size so clients can view their future plant components at a 1:1 scale.



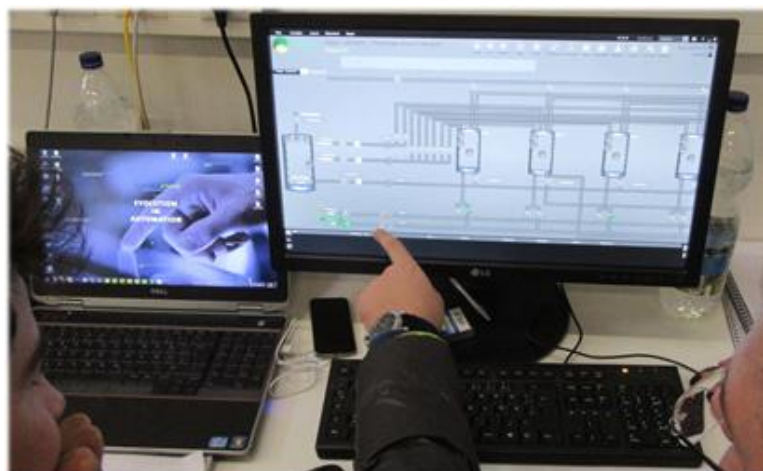
The Reactor-Hall



Sunlight – Collection - System

We have installed more than 150 m² of our proprietary sunlight collecting and concentration system, the only light source for our bioreactors. All of the Solar lens Panels track the sun precisely at angels $< 0,5^\circ$.

The plant is operated by a proprietary, industrial standard plant automation system, using that system algae growth can be controlled 24/7 at theoretical optimal conditions. Advanced algae harvesting, lipid extraction and water treatment units allow full-scale operations under realistic, industrial conditions.



Automatization System in Use



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CO₂ supply is provided by storage tank and is fully integrated into our membrane based aeration and CO₂ distribution system inside the bioreactors. This proprietary system serves as algae stirring system, prevents biofilm build-up and allows optimal CO₂ consumption by the algae.



CO₂ Tank



Blower Unit

The footprint of the installation is approx. 400 m² and contains 30.000 liter of algae suspension. The 2-stage production process driven in the 1st phototrophic stage by our Solar Lens Panels and enhanced by mixotrophic growth in the second stage has already reached daily production volumes of up to 10 kg despite the difficult weather conditions prevailing at this time of the year.

For extended lab - operation the plant also contains a couple of smaller "R&D"-reactors, either lighted artificially by a new LED generation or also using sunlight via the SLP system

Our demo plant will certainly become the best performing algae – production unit in Europe and probably even worldwide when comparing footprint and productivity

Controlling and optimizing the growth process by automated systems allows algae growth at biologically optimized conditions, an important feature when growing algae for high-value nutraceutical use.

For further information, please visit our homepage www.sunalgae.com or contact us at info@sunalgae.com