Water treatment means the use of coagulation and flocculation chemicals. These are expensive and produce sludge through the liquid-solids separation. In some instances, these chemicals could further hinder the treatment process.

What is the solution?
Move as far away from chemical induced treatment as possible. The water industry has been seeking for non-chemical treatment processes. The Solari Microbubble Generator is a non-chemical system that uses air (or any gas) to effect solid-liquid separation, thereby reducing the total suspended solids (by more than 99%).

KEY BENEFITS FOR YOU
- Reduced Chemical Usage
- Low Energy Usage
- Reduced COD and BOD
- Can Use Ozone (Or Any Gas)
- Low Energy Usage
- Low Cost Of Ownership
- High Return On Investment
- Low Maintenance
- Easily Serviced

Reduce the organic load in the water
The Solari Microbubble Generator is able to reduce the organic loading considerably in the waste stream. Typical performances reductions of COD > 80% and BOD> 50%.

Can be easily coupled with ozone, liquid oxygen or Ultrasound for Advanced Oxidation Performance to remove even more pollutants from the water.
A bit about the technology…

Microbubbles in liquid greatly enhances the surface area for enhanced mass transfer of the gas into the liquid. After mixing there is decompression of the high pressure combined gas/liquid and this forms fine charged emulsion of ~30-50 micron size. Electrical charges on the extremely fine gas bubbles prevent it from coalescing and reduce its rising velocity. Microbubbles can’t break the surface. Therefore residency time is increased. The surface area of the bubble is inversely proportional to the diameter; increasing the surface area of the gas. This increases the mass transfer co-efficient. Volumetric mass transfer co-efficient can be increased by 5-6 times. As the bubbles slowly rise the high surface area transfer the gas to the liquid. This increased mass transfer reduces the bubble size increasing the pressure of the gas (Laplace Pressure) in the bubble. At the same time the surface charge of the bubble increases its Zeta Potential. This then attracts minute suspended particles to the bubble. As the minute particles are smaller than the bubble size, the Total Suspended Solids of the liquid reduces, and water clarity increases tremendously. As the bubbles rise, the pressure inside increases and the bubble eventually bursts. This creates extreme heat, radicals and Ultrafine Bubbles (nanobubbles). All of this aids greatly in the production of radicals and gives high oxidation and disinfection.

Applications
- Drinking Water
- Wastewater Treatment
- Water Reuse And Recovery
- Cooling Tower Water
- Gas-liquid Mixing Use
- Hydroponic Farming – Increased Yields
- Fresh Produce Washing
- Drip Irrigation
- Commercial Laundry
- Membrane Fouling

Available From:

www.SolariWater.com.au
07 3118 5927
info@solariwasser.com.au
477 Boundary St, Spring Hill QLD 4000

Perfect for aquaculture as well