



OXYGENATION VS AERATION

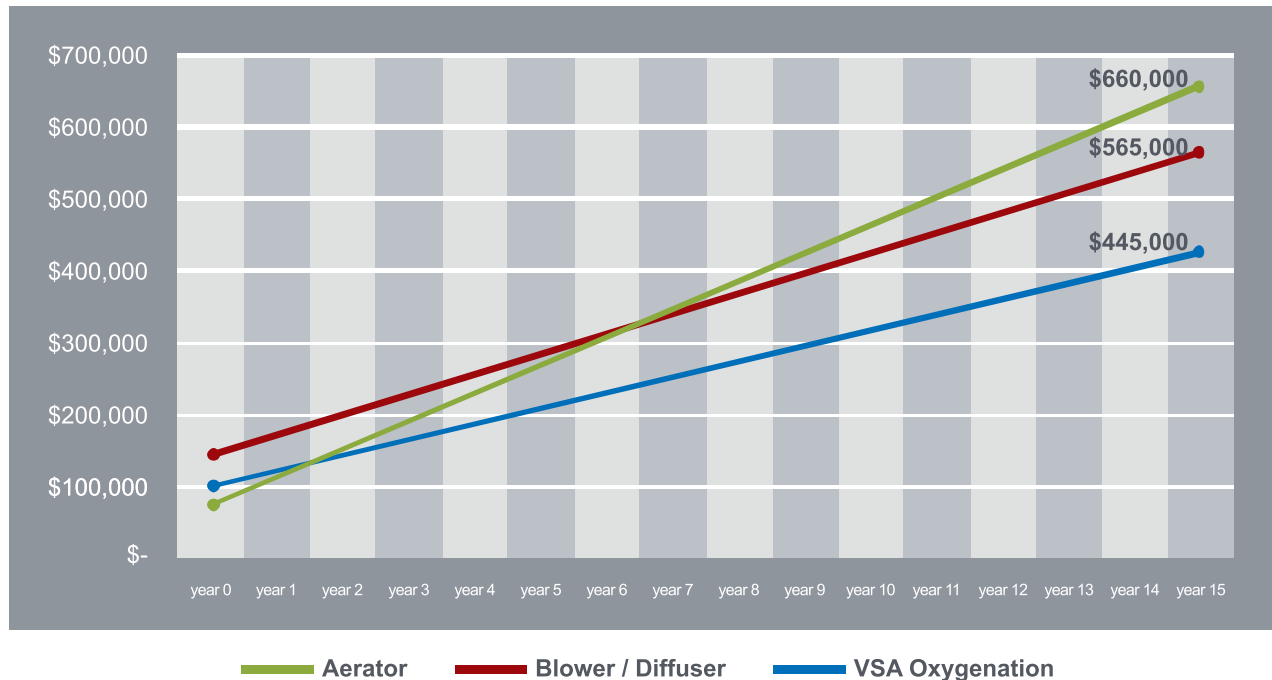
Oxygenation using on-site oxygen concentrator can yield significant cost savings over conventional aeration methods.

When it comes to BOD / COD reduction or DO management, WWTP managers have typically looked at aeration technologies that use just atmospheric air. With oxygen making up only 21% of air constituents, this method is inherently inefficient. Oxygenation using an on-site oxygen concentrator delivering 90%+ pure oxygen addresses this issue and can yield significant cost savings over these conventional methods.

If you can't afford your utility costs nor meet your load / oxygen demand - our approach can solve both problems.

PCI's VSA (Vacuum Swing Adsorption) oxygen concentrators represent a serious alternative to traditional aeration. Our very low energy consumption combined with highly efficient dissolution technologies often yield both CapX and OpX advantages. Compared with conventional aeration technologies, our approach can yield savings between 20% - 50% as depicted in the graph.

**Total Cost of Ownership Comparison -
VSA Oxygenation vs. Conventional Aeration Methods
for BOD / COD Reduction in Typical 1 MGD WWTP**



*Assumes water flow of 1 MGD, BOD load of 200 mg/l, cost of \$0.10 / kWh.
Calculations include capital, power, and maintenance costs - and are expressed as an average.*