



Improved Oxygenation of Aquaculture Systems

Linde Pure Oxygen Improves Dissolved Oxygen Levels



Pure oxygen for Aquaculture in place of traditional air-based aeration.

The Perfect Balance

It is generally recognized that three components in aquaculture must be precisely controlled to achieve the desired results. Of the three – oxygen level, feed source and water conditioning – oxygen level is where Linde's expertise comes into play. As a leading supplier of industrial gases across a wide range of food, water, steel, glass and other markets where oxygen is an essential requirement, we have helped many customers obtain, store, and utilize pure oxygen in their operations. Maintaining the proper level of dissolved oxygen in your aquaculture system is critical to the success of your operation.

Oxygen versus Traditional Aeration

Based on our work with gas/liquid mixing, conventional air-based aeration systems have limited oxygenation rates which may translate to poor dissolved oxygen levels. Since dissolved oxygen levels are also important in aquaculture, delivering pure oxygen to the pond water results in much greater transference rates compared to air-only systems. Other supporting evidence has shown that, since the composition of air is ~20% oxygen, there is opportunity to conserve electrical power when using an oxygen system. With less power than required for traditional air-based systems, it is possible to meet or exceed dissolved oxygen levels when using oxygen from Linde.

Better Oxygen Control, Improved Productivity

With precise oxygen level monitoring and delivery, your system can maintain and shift oxygen levels, as needed, and shift oxygen levels, as needed, to meet higher production goals. Customers have reported they can increase the population density of the fish per pond resulting in a greater yield per existing square foot. This allows a greater productivity in the same pond foot print without the needed capital to expand your facility.

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| Features | <ul style="list-style-type: none">→ On-site generation systems or liquid storage systems→ Technical support for tank and pad installation | <ul style="list-style-type: none">→ Industry experts for gas application→ Low capital investment |
| Benefits | <ul style="list-style-type: none">→ Improved yield and productivity→ Increased stocking density | <ul style="list-style-type: none">→ Better O₂ transfer into pond water→ Lower energy costs |

A Wealth of Experience and Support

When you choose Linde, you're selecting more than the largest supplier of industrial gases in North and South America. You're also selecting a support team that includes:

- Experienced food scientists, engineers and customer service professionals.
- A complete array of services as part of our Total System Approach.
- A food technology center and analytical laboratory staffed with industrial gas experts to address your application needs.
- Dedicated 24 hour service force with on-line monitoring for quick resolution of any oxygen supply system disruptions.

It's everything you need to improve the quality, yield and consistency of your products.

Contact Linde Today

For more information about atmosphere and gas applications developed from years of industrial gas research with atmosphere, cryogenic and process gases, call Linde at **1-844-44LINDE**, or visit our website at www.lindeus.com.

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