

Enhancing pH Control with Fuel Tech's Dissolved Gas Infusion Technology



In the realm of water treatment, precise pH control is paramount. Traditional methods often involve the use of strong acids, which can present various challenges including handling risks, storage safety, and environmental concerns. Fuel Tech's novel Dissolved Gas Infusion (DGI®) technology offers an efficient, safe, and environmentally friendly solution by using CO₂ to create carbonic acid onsite.

How DGI® Technology Works

Fuel Tech's DGI technology efficiently dissolves CO₂ into water, creating carbonic acid (H₂CO₃) on demand. This technology leverages patented designs to ensure optimal gas-liquid contact, maximizing dissolution efficiency and ensuring consistent acid generation.

Application of CO₂ for pH Adjustment

By dissolving CO₂ into water, carbonic acid is formed, which offers a moderate and controllable pH adjustment without the risks associated with strong acids. This is particularly beneficial for:

- **Municipal Water Treatment:** Enhancing pH stability in drinking water systems
- **Wastewater Treatment:** Neutralizing alkaline wastewater before discharge
- **Industrial Processes:** Balancing pH in various manufacturing and processing stages

Benefits of pH Adjustment using DGI & CO₂

- **Safety:** Eliminates hazardous handling and storage of strong acids.
- **Cost-Effectiveness:** Reduces chemical procurement and storage costs.
- **Environmental Impact:** Lowers the carbon footprint by reducing the transport of corrosive chemicals.
- **Operational Efficiency:** Provides precise and consistent pH control, enhancing overall water treatment efficiency.



Market Applications

This technology is versatile and applicable across numerous markets:

- **Food and Beverage:** Ensuring product quality and compliance with regulatory pH standards
- **Pharmaceutical:** Maintaining purity and stability of water used in formulations
- **Power Generation:** Managing cooling water systems and boiler feedwater pH
- **Aquaculture:** Stabilizing water conditions for optimal aquatic life health

Fuel Tech's DGI technology, combined with the use of CO₂ for pH adjustment, presents an innovative and effective solution for modern water treatment challenges. It supports safety, sustainability, and operational excellence across various industries.

Fuel Tech's DGI Technology for Efficient pH Adjustment


- Efficiently dissolves CO₂ into water, creating carbonic acid (H₂CO₃) on-demand and in situ.
- Patented design ensures optimal gas-liquid contact.
- Maximizes dissolution efficiency for consistent acid generation.
- Innovative and effective solution for modern water treatment challenges.
- Supports safety, sustainability, and operational excellence across various industries.

Contact Fuel Tech today to explore enhancing pH control with DGI technology.




Fuel Tech develops and commercializes state-of-the-art proprietary technologies for air pollution control, process optimization, water treatment, and advanced engineering services. These technologies enable customers to operate in a cost-effective and environmentally sustainable manner.

info@ftek.com 

+630.845.4500 

 www.ftek.com

 27601 Bella Vista Parkway
Warrenville, IL 60555