

Revolutionizing Industrial Pre-Treatment: Fuel Tech's On-Demand Carbonic Acid Generation



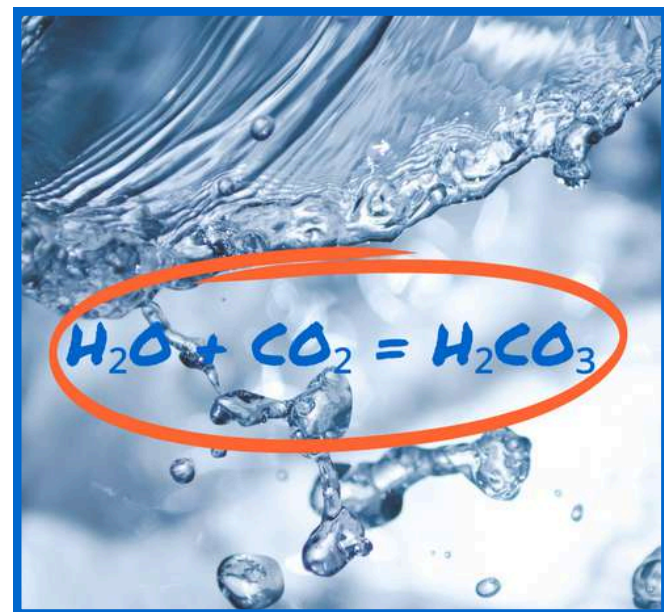
Industrial pre-treatment processes often rely on strong acids for pH control, posing numerous health, safety, and environmental challenges. Fuel Tech's On-Demand Carbonic Acid Generation uses advanced DGI® technology to dissolve CO₂ into water, generating carbonic acid onsite.

Background on pH Control in Industrial Pre-Treatment

Pre-treatment of wastewater prior to discharge to a local municipality is required of many industries. When those industries utilize chemicals that alter the pH of wastewater, either in production or clean-up operations, they are required to correct the pH prior to discharge. Traditional methods involve the transportation, storage, and handling of strong acids, raising several concerns related to safety, cost, and environmental impact.

On-Demand Carbonic Acid Generation: How it Works

Fuel Tech's DGI technology enables efficient dissolution of CO₂ into water, creating carbonic acid onsite. This process provides a safer, controllable means of pH adjustment, tailored for industrial applications.



Benefits for Industrial Pre-Treatment

- **Cost-Effectiveness:** By using On-Demand Carbonic Acid Generation, industries can significantly reduce costs related to chemical procurement, transportation, and storage. The on-demand nature of this technology minimizes waste and optimizes operational expenditure.
- **Enhanced Safety:** Eliminating the need for strong acids drastically reduces the hazards associated with their handling, storage, and potential for spills. This improves the overall safety of the workplace.
- **Sustainability:** On-Demand Carbonic Acid Generation offers a greener alternative, reducing the carbon footprint by utilizing CO₂ and minimizing the transportation of hazardous materials. This aligns with global sustainability goals and enhances corporate responsibility.

Example Scenario: Industrial Pre-Treatment Success

- **Challenge:** An industrial plant dealing with high alkalinity wastewater
- **Solution:** Implementation of Fuel Tech's On-Demand Carbonic Acid Generation process
- **Outcome:** Fuel Tech's solution transforms the plant's wastewater management, providing a sustainable and efficient approach to pH control resulting in significant cost savings, improved safety records, and a marked decrease in environmental reporting requirements. The transition leads to more efficient pH control and enhanced compliance with municipal discharge standards.

Fuel Tech's On-Demand Carbonic Acid Generation process, powered by advanced DGI technology, offers a sustainable and safer alternative to traditional strong acids in industrial pre-treatment. The benefits extend beyond cost savings, encompassing enhanced safety and ecological impact, making it a compelling choice for forward-thinking industries.

On-Demand Carbonic Acid Generation represents a transformative shift in industrial pre-treatment processes. By adopting this solution, industries can achieve better economic outcomes, enhance safety, and contribute to environmental goals.



Fuel Tech's channel injectors minimize in basin equipment.

**Contact Fuel Tech today to Revolutionize
Industrial Pre-Treatment with
Fuel Tech's On-Demand Carbonic Acid Generation.**



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.

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