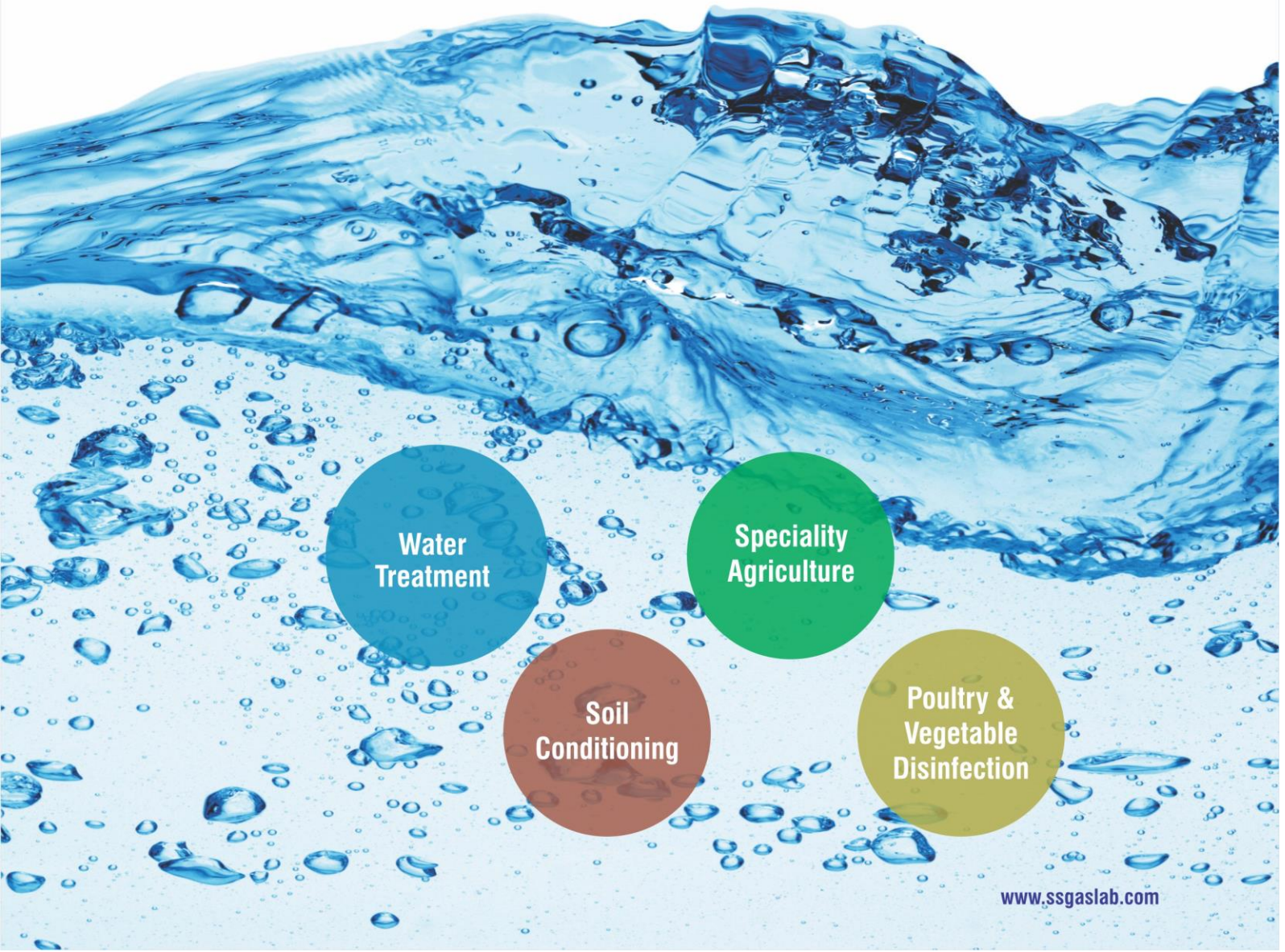
GAS LAB ASIA

PRACTICAL INNOVATION FOR INDUSTRIAL GASES

Welcome to the Carbonic Injection Revolution



www.ssgaslab.com

In spite of many applications found in beverages, packaging and welding, CO_2 proves to be a superb alternative in water industry for acidification of water and re-carbonation. GAS LAB has significant experience in CO_2 technology and its applications.



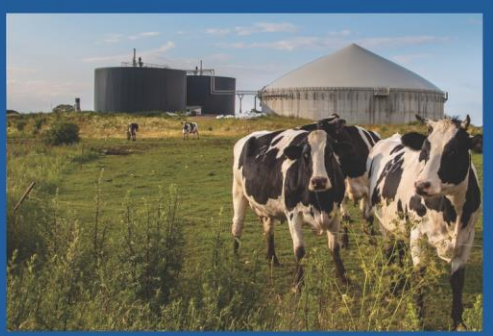
WATER TREATMENT
HIGH EFFICIENCY pH CONTROL

The CISx, GAS LAB's highly customized Carbonic acid injection system, regulates the water balance of desalination plants & other water treatment processes and delivers a recarbonated water with the tightest possible pH values and subsequently Langelier saturation index (LSI) for fast chemical response.



SPECIALTY AGRICULTURE

A controlled injection of CO_2 into greenhouses ensures healthy growth, and hence much higher yields. GAS LAB systems maintain the controlled supply of CO_2 to plants, henceforth, optimizing the habitat and the nutrients to plants requirements. On the other hand, the CISx technology also finds use in improving the economics of algal growth systems as bubbling CO_2 through algal cultivation systems can greatly increase productivity, yield and sequestering carbon at the same time.



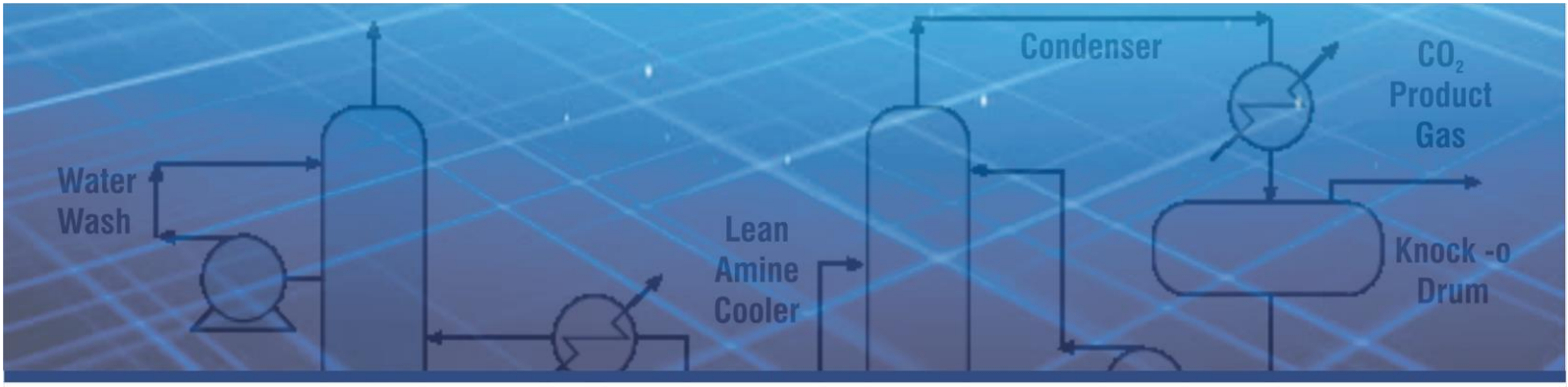
SOIL CONDITIONING

The Carbonic acid Injection system is a safe, viable and cost-effective solution to correct the ground pH imbalances and over this restores soil water to enhance nutrition of plant providing not only additional CO_2 through root absorption, but optimizing the rate of absorption of the required nutrients to the plants.



POULTRY & VEGETABLE DISINFECTION

Following the injection of Chlorine (gaseous or as Sodium hypochlorite) a correct pH controlled with the injection of CO_2 provides the active Hypochlorous Acid required for adequate disinfection of the produce. Apart from the evident health benefits, such system helps ensuring long product shelf life. GAS LAB ensures high conversion of hypochlorous acid in the chlorinated water by utilizing our highly efficient CISx System.



TECHNOLOGY

The CIS range features highly automated, world class pH control technology fitting right in with GASLAB's other offerings.

CISe®

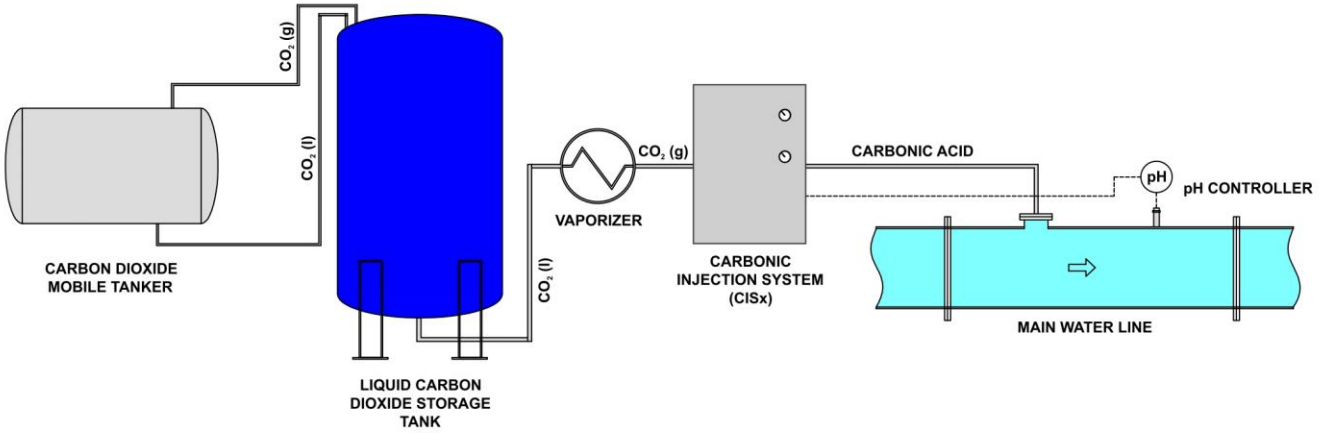
A safe, economical and eco-friendly CO_2 injection Method employing the gaseous carbon dioxide into water stream. Delivers high solubility and pH reduction for many applications such as pretreatment, desalination post-treatment, recarbonation, flocculation, disinfection. Ideal for process where medium efficiencies are preferred.

CISx®

A Carbonic Injection Technology offers superior dissolution and highly effective carbonic acid injection in water over CISe®. Ensuring an unsurpassable pH control, highest conversion efficiency and controlling tightest possible values of water pH and Langelier Saturation Index (LSI). Protects piping and downstream equipment for CO_2 injection.

SALIENT FEATURES OF CO_2 STORAGE SYSTEM

- All tanks are insulated either with vacuum - perlite filling or polyurethane foam to ensure adequate insulation for CO_2 even in demanding ambient temperatures.
- A special load cell based weighing system to accurately measure the quantity of liquid CO_2.
- All critical, pressure parts and heat exchangers are radiographed as per standard operating procedure with traceability records.
- Equipments can be supplied with U- Stamp or CE Certification.



Liquid CO_2 is taken from the tank through the vaporizers,delivering CO_2 to the process. GAS LAB vaporizer system provided converts liquid CO_2 into gas to be used by the Carbonic Injection System CISx® assembly. CISx adjusts the pressure of CO_2 gas to the desired level for delivery into the carbonic solution injector. The pH controller delivers a signal for the flow control valve to dose adequately the CO_2 and produce carbonic acid from the solution water side stream.

OTHER OFFERINGS

- Carbon Capture and Sequestration
- High purity nitrous oxide systems for semiconductor, medical and food industry
- Biogas generation and enrichment units, including high grade CO_2 recovery
- CO_2 generation systems for beverage and water desalination industry
- CO_2 recovery systems from flue gases, chemical reactions and geothermal sources
- CO_2 systems for food disinfestation
- Complete solution for storage and transportation of CO_2
- Dry ice production systems
- CO_2 purity testing apparatus and analyzers
- Standalone CO_2 accessories, equipment and testing apparatus
- Complete fabrication capacity for pressure vessels to ASME, DN,



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